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Voice Processing

System Installation and Maintenance

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Version	Changes	Owner	Date
4/00	Updated to reflect functionality enhancements incorporated into the NT-based VP system release 10.2 and the DOS-based Corporate Office release 8.3. Sections affected: 2, 5, 10, 12, 15, 20, 21, 22, 23.	Serena Smith	04-10-2000
5/00	Updated prompts in section 15.4.	Kathleen Dickason	05-05-2000
7/00	Updated to reflect addition of Windows 2000 platform. All sections affected.	Serena Smith	07-27-2000
8/00	Updated to reflect teleparameter corrections (section 11); addition of figure in section 23; addition of information on making backups on Windows-based systems (section 14); release 10.2 changes to filename format for Windows-based systems (sections 5, 16, 24); and release 10.2 additional voice board support (section 20).	Serena Smith	08-31-2000
1/01	Updated to reflect new telemarketing functionality (section 28), new VM.CFG parameters (Auto Create Mailboxes and Answer Ack, section 12), new Windows 2000 Defrag utility information (section 21), new voice prompts (section 15), new Routing box screen options (section 5), Call Control and Voice Mailbox Administration implementation information (section 22), new unified messaging message store information (sections 4, 22), Dialogic D/4PCI board and Rhetorex board information for Windows-based systems (sections 1, 16, 20), hard drive requirements (section 22), how to determine current software version (section 2), correction on how to get files into a Fax box (section 24), message delivery enhancement (sections 7, 12), auto forward enhancement (section 5), new system requirements for Windows-based systems (section 21), and new program utility to start Windows-based systems and change to name of stop program utility (section 2).	Serena Smith Kathleen Dickason	01-18-2001
3/01-1	Refinements to version 1/01 changes	Serena Smith	03-01-2001
4/01-1	Updated to reflect Question box enhancement, message delivery enhancement, new call transfer fields, changes to message store functionality information (section 5), TUI Browser functionality (section 22), new services (section 1), new prompts (section 15), and new teleparameters (section 11).	Serena Smith	04-03-2001

4/01-2	Refinements to version 4/01-1 changes, including corrections to prompt names (section 15), corrections to Client hard-disk requirements (section 22), correction to configuration requirements for Rhetorex boards on Windows-based systems (section 20), change to installation of optional modules on DOS-based systems (section 23), changes to mailbox screens (sections 5, 22, 29), addition of TUI Browser teleparameter option (section 11), change to NTRenew screen (section 2), and clarification of DOS conversion utility requirements (section 2.3).	Serena Smith	04-30-2001
7/01	Release 10.4-related changes to Dual and Single Message Store information (section 22), correction to Group box file names (section 5), correction to teleparameter # 2521 (section 11), changes to mailbox screens (sections 5, 22, 29), addition of vm.cfg parameter (section 12), correction to Filename for Cover-Page Logo/ Custom field (section 24), and addition of information on message delivery to an e-mail address (sections 5, 7).	Serena Smith	06-18-2001
10/01	Release 10.4-related changes. Addition of information on Inbox Voice Messenger for Microsoft Outlook and refinements to Single Message Store troubleshooting table (section 22), addition of 10.4 teleparameters (section 11), addition of autoforward vm.cfg parameter (section 12), and addition of Talking Classifieds module Call History Report on Windows-based systems (section 27) and KVT E-mail Delivery Service (section 1).	Serena Smith	10-08-2001

2/02	Release 11.0-related changes. Addition of instructions for moving greetings, messages, prompts; and boxes from DOS-based systems to Windows-based systems (section 2); addition of Single Message Store Audio Format parameter for the system (section 4); addition of Follow-Me mailbox feature (sections 5, 6, 7); addition of Message Playback parameter to specify whether new messages are played Last In First Out (LIFO) or First In First Out (FIFO) (section 5); addition of Queuing Option parameters (section 5); addition of Enhanced Customer Service parameters (section 5); addition of ACD Box/Customer Service Box parameters and Last In First Out (LIFO) or First In First Out (FIFO) Mailbox Setup parameter for VM.CFG file (section 11); addition of External Long Hookflash parameter in VM.CFG file (section 12); addition and update of prompts 355-374 (section 15); addition of Dual Message Store and Single Message Store installation and configuration information (section 22); addition of Inbox Voice Messenger installation instructions (section 22); addition of IVR Box Text-to-Speech enhancement (section 26).	Evan Gratzick Kathleen Dickason	02-01-2002
08/02	Included changes associated with V11.0 Srv Pk 1 update. Features included Email Reader Enhancements, Security Suspension Timer, SuperUser Access. Affected sections are Section 22 and Section 12.	Royce Hammock	8/2/02

Table of Contents

1 Overview 1-1
1.1 What Does This Voice Processing System Do? 1-1
1.1.1 What is an Automated Attendant? 1-1
1.1.2 What is Voice Mail? 1-1
1.2 Understanding the VP System Product Design 1-2
1.2.1 Understanding Box Types 1-2
1.2.2 Understanding the Default Database 1-3
1.2.3 Understanding Product Differences 1-6
1.2.4 Understanding the Services and Applications in Windows-based Systems 1-7
1.3 Accessing DOS-based Corporate Office Menu Options 1-16
1.4 Accessing Windows-based VP system Menu Options 1-17

2 Preparing the System 2-1
2.1 Understanding Available System Setup Techniques 2-1
2.2 Connecting the VP System to the Telephone System 2-2
2.2.1 Connecting Directly to the Telephone Lines 2-3
2.2.2 Connecting to a PBX or Key System 2-3
2.2.3 Connecting the Serial Cable Between the VP System and PBX 2-5
2.2.4 Making Local Connections to the Board 2-5
2.3 Moving Greetings, Prompts, Messages, and Boxes from DOS to Windows-based VP Systems 2-7
2.4 Adding Features and Ports 2-9
2.4.1 Understanding Special Activation Codes to Add Features and Ports 2-9
2.4.2 Entering a Renew Code 2-10
2.4.3 Entering Activation Codes 2-11
2.5 Starting the VP System, Logging in, and Shutting It Down 2-12
2.6 Upgrading VP Systems to the Latest Software Versions 2-13
2.6.1 Determining the Current Software Version 2-13
2.6.2 Upgrading DOS-based VP Systems 2-15
2.6.3 Upgrading Windows-based VP Systems 2-15
2.7 Collecting Information Needed for New VP System Setups 2-16
2.7.1 Application and User Setup Information 2-16
2.7.2 Phone System Information 2-21
2.8 Understanding the New VP System Setup Steps 2-23
2.9 Accessing the Windows-based Database Administrator (DBA) from a Networked PC 2-24
2.10 Using Microsoft Exchange Administrator to Modify Windows-based VP System Mailboxes 2-24

3 Running the PBX Setup Utility 3-1

4 Setting Up System Information 4-1
4.1 Integration Defaults Set by the Setup Utility 4-1
4.2 Using Technical Bulletin Information 4-2
4.3 Accessing System Information Screens 4-2
4.4 Setting Up the General Information Screen 4-3
4.4.1 General Information Screen Field Descriptions 4-6
4.5 Setting Up the Line Information Screen 4-16
4.5.1 Line Information Screen Field Descriptions 4-17
4.6 Setting Up the Business Hours Screen 4-19
4.6.1 Business Hours Screen Field Descriptions 4-20

4.7 Setting Up the Holiday Schedule Screen 4-21
4.8 Setting up the Call Transfer/PBX Information Screen. 4-23
4.8.1 Call Transfer Screen / PBX Information Screen Field Descriptions 4-24
4.9 Setting up the Technical Information Screen (DOS-based Systems) 4-29
4.9.1 Technical Information Screen Field Descriptions 4-30
4.10 Setting up Class of Service Screens 4-32
4.10.1 Class of Service Screen Field Descriptions 4-35
4.11 Setting Up the Other Customizations Screen (DOS-based Systems) 4-40
4.11.1 Other Customizations Screen Field Descriptions 4-40
4.12 Setting up Diagnostic Menu Options (Windows-based Systems) 4-43
4.12.1 Diagnostic Menu Option Descriptions 4-44

5 Specifying Box Information 5-1
5.1 What is a Box? 5-1
5.2 Viewing the Current Box Setup on the System (DOS-based Systems) 5-1
5.3 Accessing Box Information Screens 5-2
5.4 Understanding Reserved Boxes 5-3
5.5 Setting up a Mailbox 5-4
5.5.1 What Does a Mailbox Do? 5-4
5.5.2 Understanding the Prototype Mailbox (9994) 5-5
5.5.3 Mailbox Screens 5-6
5.5.4 Mailbox Screen Field Descriptions 5-12
5.5.5 Resetting a Mailbox 5-44
5.5.6 Using the Demo Mailbox 9993 5-44
5.6 Setting up a Question Box 5-44
5.6.1 What Does a Question Box Do? 5-44
5.6.2 Question Box Screens 5-47
5.6.3 Question Box Field Descriptions 5-47
5.7 Setting up a Routing Box 5-53
5.7.1 What Does a Routing Box Do? 5-53
5.7.2 Understanding Routing Box 800, 801, and 821 5-55
5.7.3 Specifying Routing Box Owners 5-55
5.7.4 Routing Box Screens 5-56
5.7.5 Routing Box Screen Field Descriptions 5-56
5.8 Setting up a Group Box 5-64
5.8.1 What Does a Group Box Do? 5-64
5.8.2 Group Box Screens 5-65
5.8.3 Group Box Field Descriptions 5-65
5.9 Setting up a Directory Box 5-67
5.9.1 What Does a Directory Box Do? 5-67
5.9.2 Directory Box Screens 5-68
5.9.3 Directory Box Field Descriptions 5-69
5.10 Setting up an ACD Box / Customer Service Box 5-72
5.10.1 What Does an ACD Box / Customer Service Box Do? 5-72
5.10.2 ACD box / Customer Service Box Screens 5-74
5.10.3 ACD Box / Customer Service Box Field Descriptions 5-76
5.11 Setting up an Account Number Box 5-85
5.11.1 What Does an Account Number Box Do? 5-85
5.11.2 Account Box Screens 5-85
5.11.3 Account Number Box Field Descriptions 5-86

6 Using Major Features 6-1
6.1 Using Call Logs 6-1
6.1.1 Understanding the Call Log 6-1

7 Using Hotel Integration Features 7-1
7.1 8.1 Specifying Guest Boxes 7-1
7.2 Using the Wake-up Call Feature 7-1
7.2.1 Scheduling Wake-up Calls 7-1
7.2.2 8.2.2 Making Wake-up Calls 7-2
7.2.3 Administrating Wake-up Calls 7-2
7.2.4 Resetting the Guest Mailbox During Room Check-in 7-3
7.3 Integrating with the PMS System 7-3

8 Troubleshooting the System 8-1
8.1 Using Test Equipment 8-1
8.2 Performing Basic Troubleshooting 8-2
8.3 Troubleshooting Display Problems (DOS-based VP systems) 8-5
8.4 Calling Technical Support 8-7
8.5 Using the Trace Feature 8-7

9 Using Serial Administration Features on DOS-based Systems 9-1
9.1 Installing KeyLink on a Kit System Host PC 9-1
9.2 Installing Necessary Software on a Remote PC 9-2
9.3 Connecting the Remote PC to the Host PC 9-3
9.4 Transferring Files Between the Remote and Host PC 9-6

10 Calling Into a Mailbox 10-1
10.1 Identifying Yourself as the Mailbox Owner 10-1
10.2 Completing the New User Tutorial 10-1
10.2.1 Tutorial Contents 10-1
10.2.2 Options for the Tutorial 10-3
10.3 Understanding the Main Menu 10-3
10.4 Listening to Messages 10-6
10.4.1 Listening to New Messages 10-7
10.4.2 Listening to Saved (Old) Messages 10-7
10.4.3 Selecting Options Between Messages 10-7
10.5 Sending a Message 10-10
10.6 Changing Mailbox Options 10-11
10.6.1 Recording a Name 10-11
10.6.2 Recording a Greeting 10-12
10.6.3 Changing a Password 10-13
10.6.4 Changing the Call Transfer Service 10-14
10.6.5 Changing the Message Notification Service 10-15
10.6.6 Changing the Pager Service 10-15
10.6.7 Reviewing Messages Scheduled for Future Delivery 10-15
10.6.8 Changing the Personal Distribution Lists 10-16
10.6.9 Retrieving a Message Already Sent to Another Mailbox 10-16
10.6.10 Logging into and out of ACD Boxes 10-16
10.7 Listening to Question Box Answers 10-17
10.8 Changing Languages in a Mailbox 10-17
10.9 Using Supervisor Mailbox Options 10-18
10.10 Placing an Outgoing Call from a Mailbox 10-18
10.11 Exiting a Mailbox 10-18
10.12 Mailbox Security 10-19

11 Using the Teleparameter Feature 11-1
11.1 Running PBX Setup (DOS Systems) 11-1
11.2 Adjusting System Info, Box Setups, and VM.CFG Data 11-4

12 Configuration File Options 12-1

13 Detecting Call-progress Tones 13-1
13.1 Using Accucall for Rhetorex Boards in DOS-based Systems 13-1
13.1.1 Running the Accucall Utility 13-1
13.1.2 Starting Accucall 13-2
13.1.3 Completing the Setup Screen 13-2
13.1.4 Completing the Auto Run Screen 13-3
13.1.5 Conducting Accucall Tests 13-4
13.1.6 Completing the Edit Tones Screen 13-5
13.1.7 Completing the Filters Screen 13-10
13.1.8 Completing the Run Screen 13-11
13.1.9 Saving Accucall Tones to a File 13-12
13.1.10 Modifying a Previously Saved File 13-12
13.1.11 Adjusting the Rhetorex Configure File 13-12
13.2 Using Train for Dialogic Boards in DOS-based Systems 13-13
13.2.1 Connecting Lines for Training to the Board 13-13
13.2.2 Running the Train Utility 13-14
13.2.3 Starting the PBXpert Program 13-14
13.2.4 Configuring the PBXpert Program 13-15
13.2.5 Creating a New PBXpert Tone Definitions File (TSF File) 13-15
13.2.6 Consolidating PBXpert Tones 13-16
13.2.7 Testing the New PBXpert Tones 13-16
13.3 Using PBXpert for Dialogic Boards 13-17
13.3.1 Connecting Lines for PBXpert/32 Training to the Board 13-17
13.3.2 Running the PBXpert/32 Program on Windows-based Systems 13-17
13.4 Using Accucall for Rhetorex Boards 13-18

14 Making Backups 14-1
14.1 Backing up DOS-based Systems to Diskette 14-1
14.1.1 Copying the AUTOEXEC.BAT and CONFIG.SYS Files 14-1
14.1.2 Copying the Database and Setup Files 14-2
14.1.3 Copying Greetings, Names, and Messages 14-2
14.1.4 Automating the Backup Process on DOS-based Systems 14-3
14.2 Restoring Files on DOS-based Systems 14-3
14.2.1 Restoring the AUTOEXEC.BAT and CONFIG.SYS Files 14-3
14.2.2 Restoring the Database and Setup Files 14-3
14.2.3 Restoring Names Greetings, Names, and Messages 14-4
14.3 Backing up Windows-based Systems 14-4
14.3.1 Making an Immediate Backup on NT-based Systems 14-4
14.3.2 Automating the Backup Process on NT-based Systems 14-5
14.3.3 Making an Immediate Backup on Windows 2000-based Systems 14-5
14.3.4 Automating the Backup Process on Windows 2000-based Systems 14-6
14.4 Restoring Files on Windows-based Systems 14-6
14.4.1 Restoring Files on NT-based Systems 14-6
14.4.2 Restoring Files on Windows 2000-based Systems 14-6

15 System Prompts 15-1
15.1 Recording System Prompts 15-20
15.1.1 Using RPROMPT and VPROMPT (DOS-based Systems) 15-21
15.1.2 Using NTPROMPT (Windows-based Systems) 15-21
15.2 Using the Sound Recorder Dialog Box (Windows-based Systems) 15-23
15.3 Preventing Certain Prompts from Playing 15-23
15.4 Using Pre-Recorded Prompt Options 15-24

16 Understanding File Organization 16-1

17 Understanding VP system Integration 17-1
17.1 Detecting Hang-Up 17-1
17.2 Integrating with PBXs 17-2
17.3 Interfacing with PBXs without Voice Mail Integration 17-4

18 System Error Messages 18-1

19 Mapping Menu Options 19-1

20 Installing Voice Boards 20-1
20.1 Using Dialogic Voice Boards 20-1
20.1.1 Dialogic Board Installation Considerations 20-1
20.1.2 Installing a DIALOG/4 Board 20-1
20.1.3 Installing a ProLine/2V Board 20-5
20.1.4 Installing a D/41D Board 20-8
20.1.5 Installing a D/41E Board 20-11
20.1.6 Special Connection Notes For Two-Port Boards (DOS-based Systems) 20-14
20.1.7 Installing a D/41H Board (Windows-based Systems) 20-15
20.1.8 Installing a D/4PCI Board (Windows 2000-based Systems only) 20-18
20.1.9 Installing a D160SC-LS Board (Windows-based Systems) 20-20
20.2 Using Rhetorex Boards on DOS-based Systems 20-21
20.2.1 Rhetorex Board Installation Considerations 20-21
20.2.2 Configuring Rhetorex RDSP 208B (Duet) and 408B (Quartet) Boards 20-23
20.2.3 Installing Rhetorex Boards in the Computer 20-23
20.3 Using Rhetorex Boards on Windows-based Systems 20-25
20.3.1 Rhetorex Board Installation Considerations 20-25
20.3.2 Installing Rhetorex Boards in the Computer 20-27

21 Installing Kit Systems 21-1
21.1 DOS-based System Requirements 21-1
21.2 Configuring the PC for the DOS-based Voice Mail 21-1
21.3 Windows-based VP system Requirements 21-2
21.4 Configuring the PC for the Windows-based VP system 21-2
21.5 Installing the Voice Processing Board 21-3
21.6 Installing the Key 21-3
21.7 Installing DOS-based VP system Software 21-3
21.7.1 Selecting the Appropriate Installation Diskettes 21-3
21.7.2 Running the DOS-based VP system Installation Program 21-4
21.7.3 Installing Optional Modules on a DOS-based VP system 21-4
21.8 Using Disk Maintenance Utilities on DOS-based Systems 21-5
21.8.1 Defragmenting Systems Using DOS 6.0 and Above 21-5
21.8.2 Defragmenting Systems Using DOS 5 and Norton Utilities 21-5
21.8.3 Defragmenting Systems Using DOS 5 and Other Disk Maintenance Utilities 21-6
21.8.4 Modifying the Automatic Maintenance Schedule on DOS-based Systems 21-6
21.9 Installing Windows-based VP system Software Components 21-6
21.9.1 Installing the Windows-based VP system Software 21-6
21.9.2 Installing Optional Modules on a Windows-based systems 21-7
21.10 Using Disk Maintenance Utilities on Windows-based Systems 21-7
21.10.1 Running Diskeeper on NT-based Systems 21-7
21.10.2 Running Windows 2000 Defrag on Windows 2000-based Systems 21-9

22 Using the Outbound Telemarketing Module 22-1

22.1 Setting Up a Telemarketing Box 22-1
22.1.1 What Does a Telemarketing Box Do? 22-1
22.1.2 Accessing the Telemarketing Box 22-1
22.1.3 Telemarketing Box Screen Field Descriptions 22-2
22.1.4 Specifying External Dial Rules 22-7
22.2 Detecting Answering Machines 22-7
22.3 Setting Up a Telemarketing Application 22-8

23 Installing and Using CTI Features 23-1
23.1 Implementing VCM 23-1
23.1.1 Setting up Subscriber Workstations to Use VCM 23-2
23.1.2 Adjusting Subscriber Mailboxes to Permit VCM Access 23-3
23.1.3 Using VCM 23-4
23.2 Implementing Unified Messaging 23-4
23.3 SuperUser Access to Exchange 2000 23-14
23.3.1 Installation and Setup for Proxy User 23-14
23.4 Implementing DMS Unified Messaging and E-mail Reader 23-15
23.4.1 Understanding Requirements for DMS and E-mail Reader 23-15
23.4.2 Understanding How DMS and E-mail Reader Function on the LAN 23-17
23.4.3 Installation and Setup For Unified Messaging 23-21
23.4.4 Installing the Features 23-22
23.4.5 Setting up the Features 23-22
23.4.6 Installation and Setup on a client PC 23-27
23.4.7 Email Reader enhancements 23-32
23.4.8 Using The Features 23-33
23.4.9 Troubleshooting Dual Message Store 23-35
23.5 Implementing Single Message Store Unified Messaging 23-36
23.5.1 Understanding The Requirements 23-37
23.5.2 Setting up The Features 23-37
23.5.3 Setting up Single Message Store with TUI Browser 23-42
23.5.4 Installing the Inbox Voice Messenger Module 23-43
23.5.5 Troubleshooting Single Message Store with TUI Browser 23-45
23.6 Implementing Call Control and Voice Mailbox Administration 23-47
23.6.1 Setting up Subscriber Workstations 23-47
23.6.2 Adjusting Subscriber Mailboxes 23-49
23.6.3 Using Call Control and Voice Mailbox Administration 23-50
23.7 Implementing Web-based PCM Module Components 23-50
23.7.1 Setting up Web-based Tools on the Interchange 23-51

24 Installing Optional Modules 24-1
24.1 Activating Modules and Installing Module Prompts 24-1
24.2 Installing Hardware/Software Required for Fax Modules 24-2
24.2.1 Connecting the Telephone Lines to the Fax Boards 24-2
24.2.2 Installing Satisfaxion Fax Boards 24-5
24.2.3 Installing Satisfaxion Software and Configuring Each Board 24-6
24.2.4 Installing GammaLink Fax Boards 24-8
24.2.5 Installing GammaLink Software and Configuring Each Board 24-10
24.3 Sharing Fax Ports 24-12
24.4 Using Enhanced Fax Configurations 24-13
24.4.1 Using Fax Boards with Dedicated Telephone Lines 24-13
24.4.2 Using a Third-Party Application to Send Faxes 24-14

25 Using the Fax Distribution Module 25-1
25.1 Setting up a Fax Box 25-1

25.1.1 Accessing the Fax Box Screen 25-1
25.1.2 Fax Box Field Descriptions 25-2
25.2 Setting up System Settings for Fax 25-5
25.2.1 Accessing the Fax Setup Screen 25-5
25.2.2 Fax Setup Screen Field Descriptions 25-6
25.2.3 Setting up Fax Distribution Restrictions 25-11
25.3 Sending a Fax into a Fax Box 25-12
25.3.1 Using Fax from the Desktop to Send a Document into a Fax Box 25-13
25.3.2 Sending a Document on Paper into a Fax Box 25-14
25.4 Retrieving a Fax from the VP system 25-15
25.5 Setting Up Fax Broadcasting 25-17
25.6 Logging Fax Calls 25-17
25.6.1 Using the General Call Log File 25-17
25.6.2 Reviewing the Fax Log File 25-18
25.7 Using Fax Distribution Prompts 25-18
25.7.1 Using New Prompts 25-18
25.7.2 Modifying Existing Prompts 25-19
25.7.3 Copying Pre-Recorded Modified Prompts 25-19

26 Using the FaxMail Module 26-1
26.1 Configuring the System for FaxMail 26-1
26.2 Sending a FaxMail Document 26-1
26.3 Retrieving Documents from a Mailbox 26-3
26.3.1 Setting Up a Mailbox to Automatically Fax Documents to a Specified Number 26-4
26.4 Sending a FaxMail from an Open Mailbox 26-5
26.5 Using New and Modified Prompts 26-5
26.5.1 Using New Prompts 26-5
26.5.2 Modifying Existing Prompts 26-6
26.5.3 Copying Pre-Recorded Modified Prompts 26-6

27 Using the IVR Module 27-1
27.1 What is IVR? 27-1
27.2 Setting Up an IVR Box 27-1
27.2.1 What Does an IVR Box Do? 27-1
27.2.2 Accessing the IVR Box Screen 27-2
27.2.3 IVR Box Field Descriptions 27-3
27.3 Using Custom Prompts for IVR 27-10
27.3.1 Setting Up Custom Prompts 27-11
27.4 Setting Up an IVR Application 27-11
27.5 Speeding Searches Using Indexed Files 27-15
27.5.1 Running VRBINDEX 27-15
27.5.2 Notes on Delimiters 27-15

28 Using the Talking Classifieds Module 28-1
28.1 Setting Up a Talking Classifieds Application 28-1
28.2 Setting Up a Gateway Box 28-4
28.2.1 What Does a Gateway Box Do? 28-4
28.2.2 Accessing the Talking Classifieds Gateway Box Screen 28-5
28.2.3 Gateway Box Screen Field Descriptions 28-5
28.3 Setting Up a Listing Box 28-7
28.3.1 What Does a Listing Box Do? 28-7
28.3.2 Accessing the Listing Box Screen 28-7
28.3.3 Listing Box Screen Field Descriptions 28-8
28.4 Accessing a Listing Box Remotely 28-10

28.5 Generating Talking Classifieds Reports 28-11
28.5.1 Preparing the Talking Classifieds Report 28-12
28.5.2 Completing the Call History Screen (DOS-based Systems) 28-12
28.5.3 Completing the Call History Report Screen (Windows-based Systems) 28-13
28.5.4 Printing the Talking Classifieds Report 28-13
28.6 Automatically Allocating Mailboxes 28-14
28.6.1 Accessing the Auto Allocation Screen 28-14
28.6.2 Automatic Allocation Screen Field Descriptions 28-15
28.6.3 Setting Up Allocable Mailboxes 28-16
28.6.4 Setting up Companion Listing Boxes for Automatic Allocation Mailboxes 28-17
28.7 Using Talking Classified Module Prompts 28-18
28.7.1 Using New Prompts 28-18
28.7.2 Modifying Existing Prompts 28-19
28.7.3 Copying Pre-Recorded Modified Prompts 28-19

29 Program Screens 29-1
29.1 DOS-based VP system—System Information Screens 29-1
29.1.1 Automatic Mailbox Allocation Screen 29-1
29.1.2 Business Hours Screen 29-1
29.1.3 Call Transfer Screen 29-2
29.1.4 Class of Service Screen 29-2
29.1.5 29.1.5 Classifieds Gateway Screen 29-3
29.1.6 Fax Setup Screen 29-3
29.1.7 Fax Distribution Restrictions Screen 29-4
29.1.8 General Information Screen 29-4
29.1.9 Holiday Schedule Screen 29-5
29.1.10 Line Information Screen 29-5
29.1.11 Other Customizations Screen 29-6
29.1.12 Technical Information Screen 29-6
29.2 DOS-based VP system—Box Setup Screens 29-7
29.2.1 Account Number Box Screen 29-7
29.2.2 ACD Box Screen 29-7
29.2.3 Directory Box Screen 29-8
29.2.4 Fax Box Screen 29-8
29.2.5 Group Box Screen 29-9
29.2.6 Listing Box Screen 29-9
29.2.7 IVR Box Page 1 Screen 29-10
29.2.8 IVR Box Page 2 Screen 29-10
29.2.9 IVR Box Page 3 Screen 29-11
29.2.10 Mailbox Page 1 Screen 29-11
29.2.11 Mailbox Page 2 Screen 29-12
29.2.12 Mailbox Page 3 Screen 29-12
29.2.13 Mailbox Page 4 Screen 29-13
29.2.14 Mailbox Page 5 Screen 29-13
29.2.15 Question Box Screen 29-14
29.2.16 Routing Box Screen 29-14
29.2.17 Telemarketing Box Screen 29-15
29.3 Windows-based VP system System Information Screens 29-15
29.3.1 Automatic Mailbox Allocation Screen 29-15
29.3.2 Business Hours Screen 29-16
29.3.3 Class of Service Screen, Message Tab 29-16
29.3.4 Class of Service Screen, Greetings Tab 29-17
29.3.5 Class of Service Screen, Call Holding Tab 29-17
29.3.6 Class of Service Screen, Call Restrictions Tab 29-18

29.3.7 Custom Flags Screen 29-18
29.3.8 Fax Setup Screen, Miscellaneous Tab 29-19
29.3.9 Fax Setup Screen, Wiring Tab 29-20
29.3.10 Fax Setup Screen, Restricted Numbers Tab 29-21
29.3.11 General Information Screen, Miscellaneous Tab 29-21
29.3.12 General Information Screen, Directories Tab 29-22
29.3.13 General Information Screen, Security Tab 29-22
29.3.14 General Information Screen, Message Options Tab 29-23
29.3.15 General Information Screen, Transfer Options Tab 29-23
29.3.16 Holidays Screen 29-24
29.3.17 Line Information Screen 29-24
29.3.18 PBX Information Screen, Miscellaneous Tab 29-25
29.3.19 PBX Information Screen, Call Transfer Sequences Tab 29-25
29.3.20 Serial Port Setup Screen 29-26
29.3.21 Trace Setup Screen 29-26
29.4 Windows-based VP system Box Setup Screens 29-27
29.4.1 Account Box Screen 29-27
29.4.2 ACD Box / Customer Service Box Screen, General Tab 29-27
29.4.3 ACD Box / Customer Service Box Screen, Queuing Options Tab 29-28
29.4.4 ACD Box / Customer Service Box Screen, Recorded Announcements Tab 29-28
29.4.5 ACD Box / Customer Service Box Screen, Enhanced Tab 29-29
29.4.6 Directory Box Screen 29-29
29.4.7 Fax Box Screen 29-30
29.4.8 Group Box Screen 29-30
29.4.9 IVR Box Screen, Data File Tab 29-31
29.4.10 IVR Box Screen, Recording Inputs Tab 29-31
29.4.11 IVR Box Screen, Recording Outputs Tab 29-32
29.4.12 IVR Box Screen, Searching Tab 29-33
29.4.13 IVR Box Screen, Playing Results Tab 29-34
29.4.14 Listing Box Screen 29-34
29.4.15 Mailbox Screen, General Tab 29-35
29.4.16 Mailbox Screen, Call Transfer Tab 29-35
29.4.17 Mailbox Screen, Follow-Me Tab 29-36
29.4.18 Mailbox Screen, Recording Tab 29-36
29.4.19 Mailbox Screen, Message Delivery Tab 29-37
29.4.20 Mailbox Screen, Pager Tab 29-37
29.4.21 Mailbox Screen, Distribution Lists Tab 29-38
29.4.22 Mailbox Screen, Hotel Tab 29-38
29.4.23 Mailbox Screen, Enhanced Tab 29-39
29.4.24 Mailbox Screen 29-39
29.4.25 Question Box Screen 29-40
29.4.26 Routing Box Screen 29-41
29.4.27 Talking Classifieds Gateway Box Screen 29-41
29.4.28 Telemarketing Box Screen, When to Call Tab 29-42
29.4.29 Telemarketing Box Screen, Call Control Tab 29-43
29.4.30 Telemarketing Box Screen, File Names Tab 29-44

1. OVERVIEW

1.1 What Does This Voice Processing System Do?

In its simplest form, this voice processing system, or *VP System* as it is referred to as in this manual, acts like a telephone receptionist. It answers incoming calls and transfers them to the appropriate extension. If the called extension is not available (busy or no answer), the VP System offers to take a message or try an alternative extension.

VP System functionality includes:

- Automated attendant features
- Voice mail features

These two functions work together to provide smooth call coverage for your application.

1.1.1 WHAT IS AN AUTOMATED ATTENDANT?

The VP system automated attendant features perform the tasks of a live attendant. The following table illustrates how.

Live Attendant	VP System Automated Attendant
Answers an incoming call by lifting telephone.	Answers an incoming call by going "off-hook."
Greets the caller with a phrase such as, "Welcome to [XYZ Company]."	Greets the caller by playing a pre-recorded greeting such as, "Welcome to [XYZ Company]."
Asks to whom the caller wished to speak.	Plays a pre-recorded greeting that prompts the caller to either dial the extension of the party they are trying to reach or choose from a list of voiced options to route the call to a specific department or group.
Listens to the caller's response.	Listens to the digits dialed by the caller.
Says, "Please hold."	Plays a pre-recorded phrase, "*Please hold...*"
Calls the required extension by hook-flashing and dialing the extension number.	Calls the required extension by hook-flashing and dialing the extension number.
Listens for busy tone, ring tone, answer, etc.	Listens for busy tone, ring tone, answer, etc.
If the extension is busy, offers to let the caller hold. If the extension does no answer, offers to take a message or try another extension.	If the extension is busy, plays a pre-recorded prompt offering the option to hold. If the extension does not answer, plays a pre-recorded prompt offering to take a message or try another extension.

1.1.2 WHAT IS VOICE MAIL?

The term *voice mail* refers to systems that can record a voice message and treat it like a mail message.

In a typical office environment, the live attendant takes a message from a caller and writes it down on a piece of paper. The attendant then places the slip in the recipient's in-box or *mailbox*. The box owner then retrieves and reads the message placed in the box.

In contrast, the VP System records a message from a caller and places it in a voice mailbox. The mailbox owner can later retrieve the message by calling into the VP System and listening to the recording. The table below compares how the VP System processes voice messages compared to a live attendant.

Live Attendant	VP System Voice Mail
Attendant listens as the caller dictates his/her message, writing it down on a piece of paper.	VP system records the message as the caller speaks.
Attendant places the message slip in a mailbox belonging to the recipient.	VP system stores the voice message electronically in the recipient's voice mailbox.
Attendant dials the code to turn on message waiting lamp on the recipient's telephone.	VP system dials the code to turn on the message waiting lamp on the recipient's telephone.
Recipient sees the message waiting lamp is on, and retrieves message slips from the message mailbox.	Recipient sees the message waiting lamp is on and dials the VP system to retrieve messages.
Recipient reads messages left on message slips.	VP system plays messages recorded by callers in the voice mailbox.

1.2 Understanding the VP System Product Design

All VP system products are designed using the Box concept. A box contains a set of instructions that tells the program what to do with a call it is handling. By setting up the system to send calls to different boxes created on the system, you can have it effectively process calls—including playing certain prompts or greetings to callers, collecting information and messages from callers, and routing calls to certain extensions based on digits dialed by callers.

> Note: All VP system products use the same general software design, but each has different limitations on the number of boxes you can set up on the system and whether you have access to certain optional modules. Information provided in this manual is designed to accommodate all VP system types. Therefore, certain sections and procedures may not be applicable to certain VP system users. If you have questions regarding the availability of a specific feature or option on a particular system, contact your sales representative.

1.2.1 UNDERSTANDING BOX TYPES

Routing boxes are used to answer incoming calls, play a list of options to callers, and route calls to a specific mailbox based on the digits dialed by the caller. The mailboxes transfer calls to their associated extensions and store messages for system subscribers, and they can be set up to forward calls to another phone or extension number, deliver messages to another phone or pager, play one of 10 prerecorded greetings to callers, screen calls, queue calls when the extension is busy, or record call conversations.

Routing boxes and mailboxes are the two core boxes used on the VP system. The following table identifies other available box types and provides a brief synopsis of how each box is used on the VP system.

Box Type	Function
Mailbox	Performs call transfers. Plays personal greetings. Takes messages. Activates pagers. Delivers messages internally or externally. Activates message waiting lights.
Question box	Performs question/answer sessions. Records caller responses verbally or in a text file.
Routing box	Offers menu choices, and routes calls. Plays system recordings.
Group box	Houses a list of mailboxes, allows users to easily send one message to more than one mailbox owner.
Directory box	Allows callers to spell out (via their touch-tone dial-pad) the name of the person to whom they want to speak, or to simply listen to the entire directory listing.
ACD box	Searches a list of extensions for one that is not busy, then transfers the call to that extension.
Account Number box	Asks the caller to enter an account number (or phone number, Zip Code, etc.), which is tagged to the call and used for other functions.

Each of these boxes is described in detail in section 5.

Note: No matter where you are in the system, you can get help by pressing the <F1> key from VP system screens.

1.2.2 UNDERSTANDING THE DEFAULT DATABASE

The VP system contains a default database with a setup configuration that allows the system to perform fundamental call processing tasks efficiently with minimal system adjustments by the installing technician. This default database configuration includes 2 pre-defined classes of service (0 and 7), 1 supervisor mailbox (mailbox 70), and 3 Routing boxes—800, 801, 821.

As you proceed through these setup instructions, you will make adjustments to specific information relating to the default setup. As you make any changes, keep in mind that **we urge you to maintain the initial general configuration of Routing boxes 800, 801, and 821, Class of Service 7, and supervisor mailbox 70**. This configuration allows the VP system to perform fundamental call processing tasks efficiently. Maintaining it helps both the installing technician and VP system technical support to service the system and resolve any call processing issues. For these reasons we urge you **not to deviate from this general system setup default configuration.**

The information below highlights the set up configuration provided with the default database included on the VP system. Refer to this information as needed while you customize the VP system for the customer's specific application. For additional information on Routing box, mailbox, and prototype mailbox functionality, see section 5.5. For additional information on Class of Service setup, see section 4.10.

Note:	Though you may make adjustments to specific information relating to this default setup, you are urged to maintain the general configuration of Routing boxes 800, 801, and 821, Class of Service 7, and supervisor mailbox 70. This configuration allows the VP system to perform fundamental call processing tasks efficiently. Maintaining it helps both the installing technician and VP system technical support to service the system and resolve any call processing issues.

Technician Password:

1234

Business Hours (specified on the BUSINESS HOURS screen):

8:00 AM - 5:00 PM

Routing Box 800:

Answers all incoming calls during day/lunch hours (specified on the BUSINESS HOURS screen)

Owned by mailbox 70

Routing Box 801:

Answers all incoming calls during non-day/lunch hours (specified on the BUSINESS HOURS screen)

Owned by mailbox 70

Routing Box 821:

Routes calls that have already passed through Routing box 800 or 801

Owned by mailbox 70

Class of Service 0:

Set up with the following parameter settings (for information on specific parameter fields, refer to section 4.10:

MAXIMUM NUMBER OF GREETINGS: **10**

MAXIMUM NUMBER OF MESSAGES: **200**

MAXIMUM GREETING LENGTH (SECS): **60**

MAXIMUM MESSAGE LENGTH (SECS) **60**

AUTO-DELETE OLD MESSAGES AFTER **30** DAYS.

AUTO DELETE NEW MESSAGES AFTER **99** DAYS.

SUPERVISOR STATUS? **No**

ACCESS TO GROUP-BOXES? **Yes**

DIAL-OUT ALLOWED? **No**

ACCESS TO P.A.? **Yes**

PLAY MENU AFTER GREETING? **No**

ALLOWED TO RECEIVE FAXMAIL? **No**

OPERATOR BOX (DAY): **888** (NIGHT): **888**

WHEN EXITING OPEN MAILBOX, GO TO BOX**: 821**

MAX LINES ALLOWED TO HOLD FOR ONE BOX: **2**

WHILE IN QUEUE, SAY POSITION IN LINE? **No**

TRY EXTENSION **3** TIMES BEFORE GOING BACK TO CALLER

RESTRICTED DIGITS: **[None]**

Class of Service 7:

Set up with the Class of Service 0 options, but with SUPERVISOR STATUS **enabled**

Extension Length:

3 digits

Password Length:

4 digits

Default Passwords:

Equal the mailbox numbers

Mailbox 70:

Set up as the Supervisor mailbox with Class of Service 7

Prototype mailbox 9994 (characteristics are automatically assigned to all mailboxes created):

TRANSFER TYPE: **Wait for Ring**

CLASS OF SERVICE: **0**

to: **x** *(signifies the mailbox number)*

CURRENTLY ENABLED: **Yes**

TRANSFER SCHEDULE: **Always**

PASSWORD**: x** *(signifies the mailbox number)*

SEQUENCE TO TURN ON/OFF MESSAGE WAITING LAMP: *(set by Integration program)*

AFTER PLAYING GREETING: **Wait for digit**

1.2.3 UNDERSTANDING PRODUCT DIFFERENCES

All VP system products use the same software base, but each has different limitations on the number of boxes you can set up on the system and whether you have access to certain optional modules. Information provided in this manual is designed to accommodate all VP system types. Therefore, certain sections and procedures may not be applicable to certain VP system users. If you have questions regarding the availability of a specific feature or option on a particular system, contact your sales representative.

Also be advised that the Windows-based VP system offers users a graphical screen interface, which provides slide bars, tabbed pages, buttons, and icons that are not available with other VP system systems. For information on navigating Windows-based VP system screens using graphical screen elements such as tabbed pages and buttons, consult a Microsoft NT or Windows 2000 user's manual.

The functionality of system and box setup screens, fields on screens, and most configuration file parameters is identical throughout the entire line of VP system products, including the Windows-based products. With the Windows-based products, however, there are differences in the techniques you use to access system and box setup screens and navigate through those screens. The Windows-based VP system allows you to display multiple windows simultaneously, for example, and to access some screens from within others, whereas other VP systems do not. These differences equip Windows-based system users with additional navigational and display flexibility.

To ease dealer and technician transition to the Windows-based product, most screen and system navigation techniques provided with other VP systems are also provided with the Windows-based systems. You can, for example, use the same function keys in both types of systems to navigate through program screens.

Because this manual is designed to accommodate all VP system models, it references these common navigational techniques in discussions and procedures wherever possible. Keep in mind, therefore, that if you are working with a Windows-based VP system, you may choose to use navigational techniques other than those documented here to access and work with the screens.

With this in mind, also be advised that you may choose to use Windows tools such as File Manager or Explorer to complete tasks that are performed from a DOS prompt on other systems. Because Windows-based system users can perform these tasks from a DOS prompt or using other techniques, for the sake of simplicity, only the DOS prompt method is discussed in this manual.

1.2.4 UNDERSTANDING THE SERVICES AND APPLICATIONS IN WINDOWS-BASED SYSTEMS

When the VP system is installed on a PC running Windows, 5 separate applications and 10 separate services are set up on the PC. Each of these is listed below.

Note:	An *application* is a program launched by a user. Applications typically include a graphical user interface (GUI) that allows a user to easily make modifications that affect how the program operates. A *service* is a program typically launched by the operating system. Services do not have a graphical user interface (GUI), and under normal operation, they are not directly modified by the user. In some cases, however, a service may be designed to monitor a specific application and use information a user enters onto that application's screens.

Understanding VP system Windows Applications

The following illustration depicts an example of the system applications menu that displays on PCs running Windows-based systems.

Note that an additional application, PBX Setup, is also provided with Windows-based VP system systems. Because the PBX Setup application should only be run the first time the system is set up, it is not included on the applications menu.

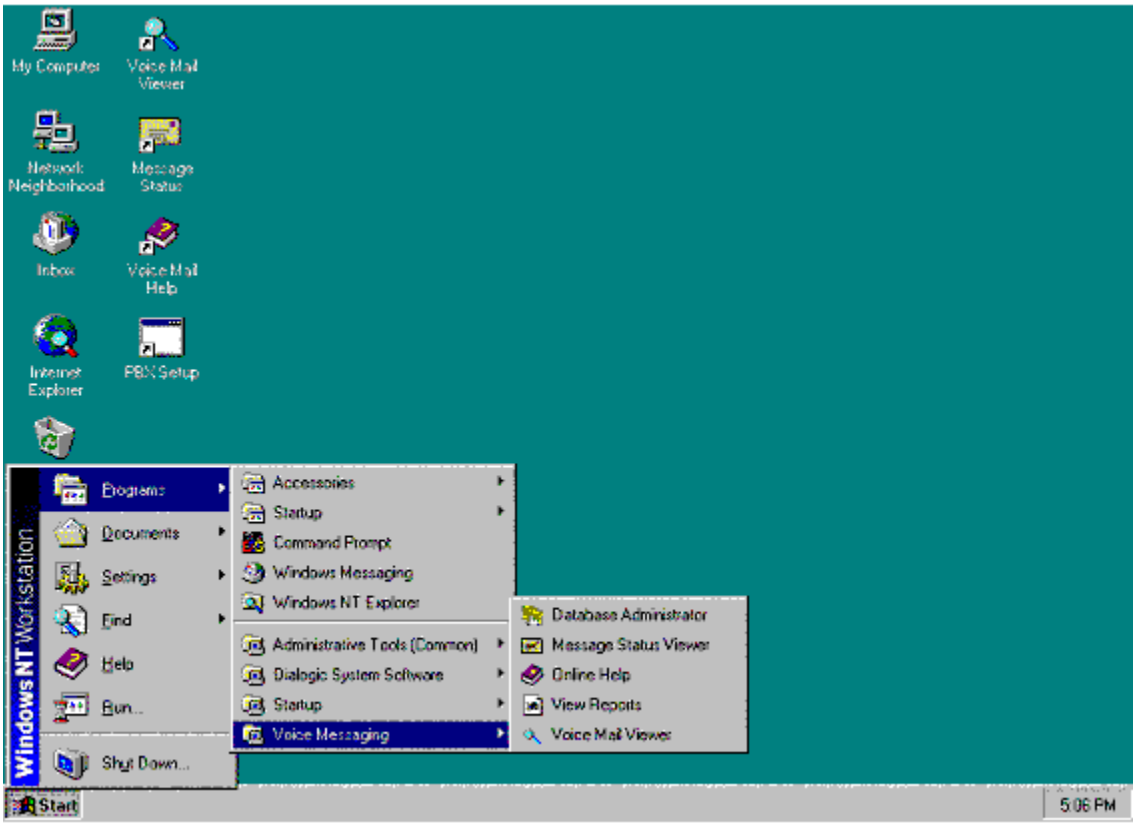
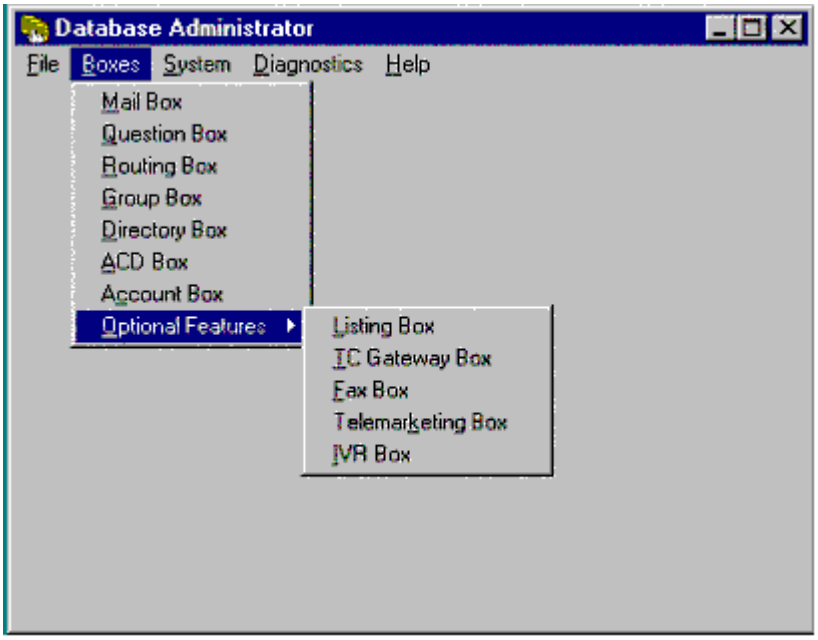


Figure 1-1 Starting VP system

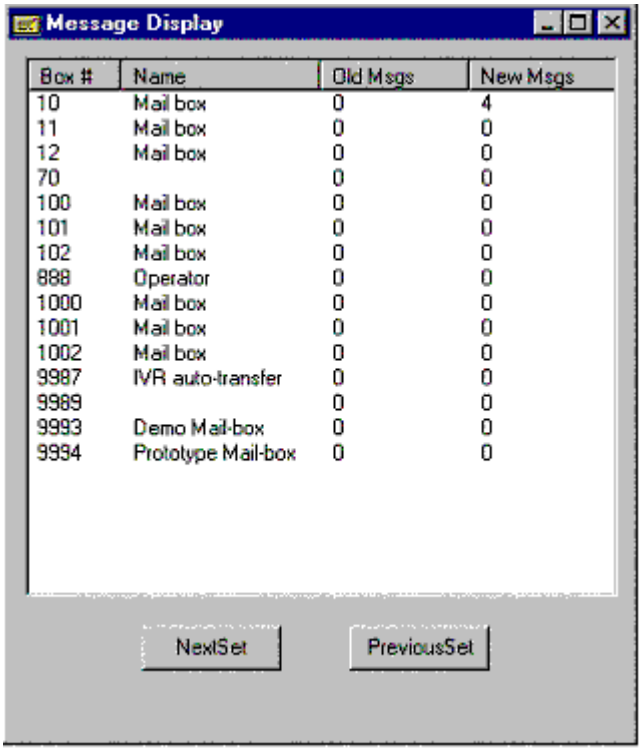
Database Administrator Application

Purpose	Allows the use to view and modify system and box setups.
Location	VP system PC (but can be moved to another PC on the LAN).
Filename	DBA.EXE
Interaction	Data entered by the user is used by the KCT Database Manager service.



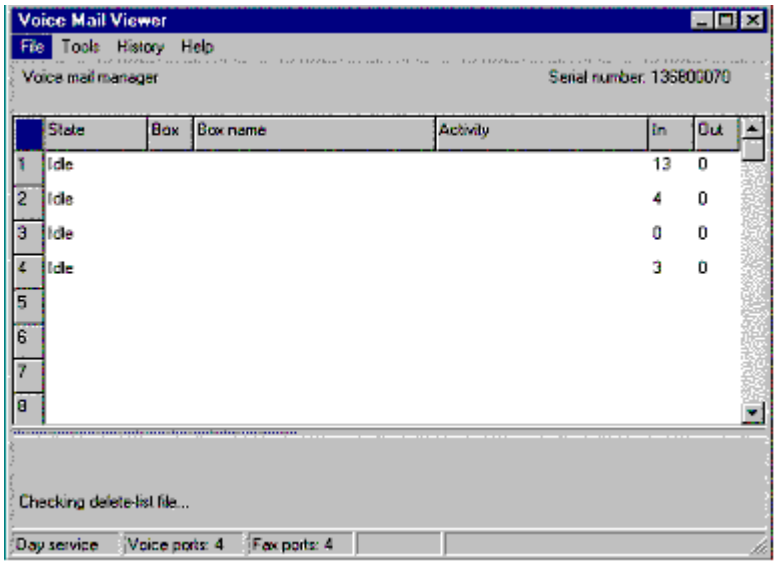
Message Status Viewer Application

Purpose	Allows the user to view the number of Old and New messages in mailboxes
Location	VP system PC (but can be moved to another PC on the LAN).
Filename	BOXDISPLAY.EXE.
Interaction	Displays data stored in the KVT Database Manager service.



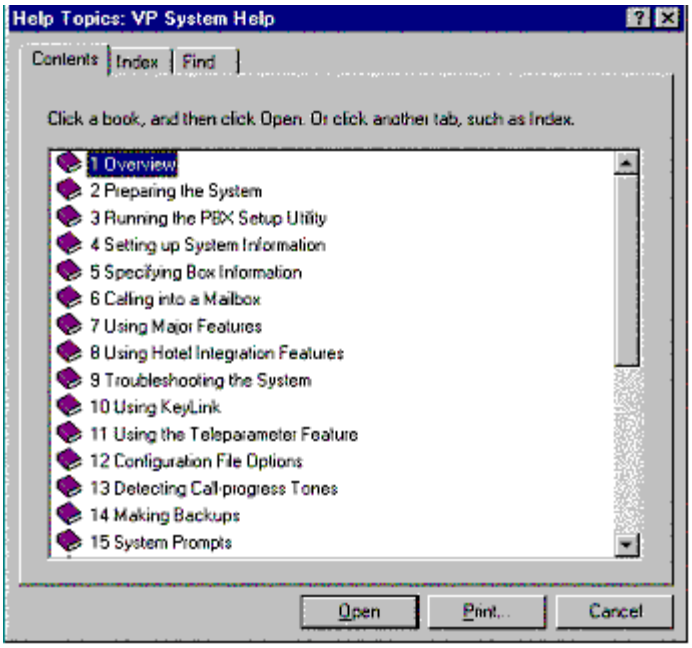
Voice Mail Viewer Application

Purpose	Allows the user to view the status of the KVT Voice Mail Manager service, including the current line activity, and the storage available. Also allows the user to enable or disable a port on the system.
Location	VP system PC (but can be moved to another PC on the LAN).
Filename	VIEWER.EXE.
Interaction	Displays data stored in the KVT Voice Mail Manager service and provides port enabling or disabling data to that service.



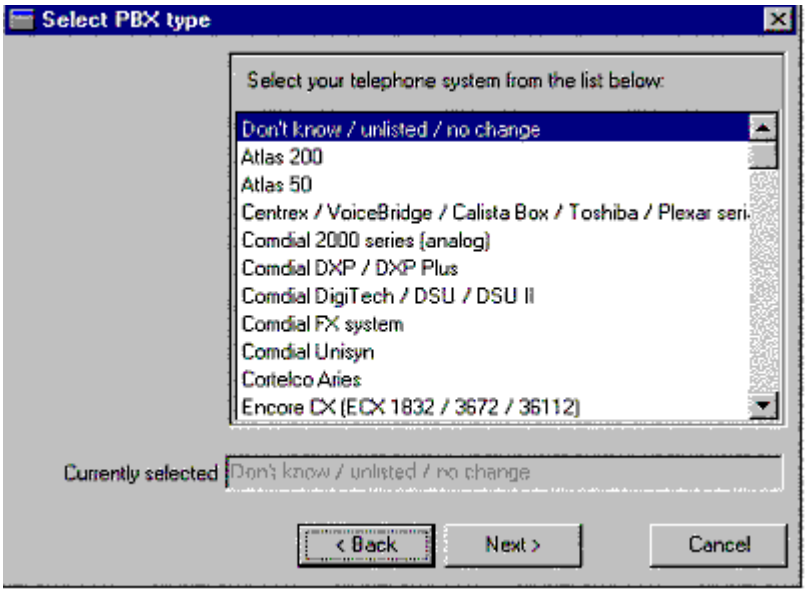
Online Help Application

Purpose	Provides online access to the information in the Installation and Maintenance Manual. Information provided covers installing, setting up, and working with the VP system using the system's screens and telephone interface
Location	VP system PC (but can be moved to another PC on the LAN).
Filename	DBA.HLP
Interaction	Online help can be run as an independent application on any computer running Windows 95/98, NT, or 2000. It is also accessible through the Voice Mail Viewer application and the Database Administrator application



PBX Setup Application

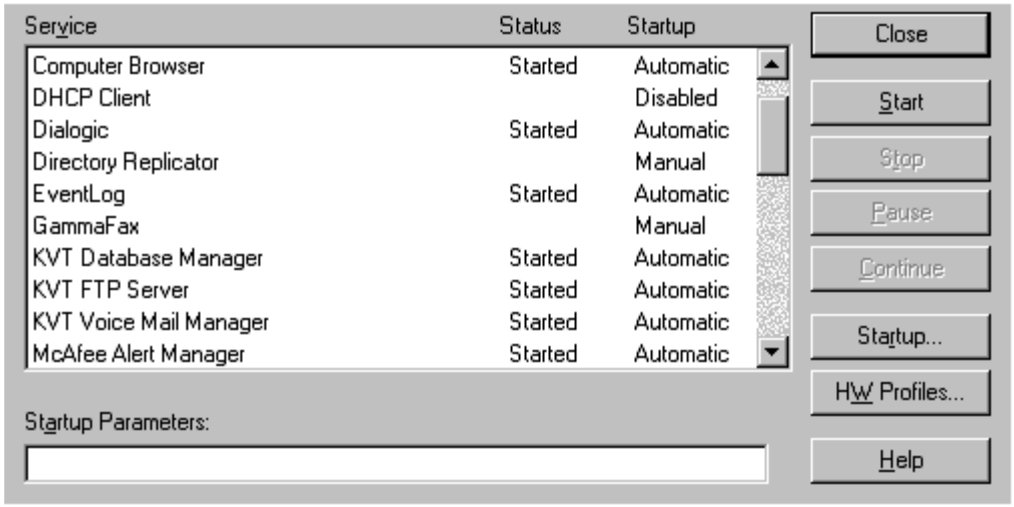
Purpose	Allows the user to specify the PBX type, extension length, and other system setup and integration-related information.
Location	VP system PC.
Filename	PBXSETUP.EXE.
Interaction	Data entered by the user is used by the KVT Database Manager service.


Select PBX type
Select your telephone system from the list below:
Don't know / unlisted / no change
Atlas 200
Atlas 50
Centrex / VoiceBridge / Calista Box / Toshiba / Plexar seri
Comdial 2000 series (analog)
Comdial DXP / DXP Plus
Comdial DigiTech / DSU / DSU II
Comdial FX system
Comdial Unisyn
Cortelco Aries
Encore CX (ECX 1832 / 3672 / 36112)
Currently selected
Don't know / unlisted / no change
< Back
Next >
Cancel

Understanding VP system Services

The following illustration depicts an example of a Services dialog box that displays on PCs running Windows-based systems. (You access this box by clicking on the Start button, then selecting Control Panel / Services.) The VP system services are listed below:

- Dialogic Service or Brooktrout Service (depending on the type of voice boards included in the system)
- GammaFax Service
- KVT Audio Gen Service
- KVT Database Manager Service
- KVT E-mail Delivery Service
- KVT Voice Mail Manager Service
- KVT Navigator Service
- KVT Reports Service
- KVT Sendmail Service
- KVT FTP Server Service
- Proxy E-mail Client Service



Dialogic Service or Brooktrout Service

Purpose	Operates the voice boards.
Location	VP system PC
Interaction	Exchanges data with other services, primarily the KVT Voice Mail Manager service.

GammaLink Service

Purpose	Operates the fax boards.
Location	VP system PC.
Interaction	Exchanges data with other services, primarily the KVT Voice Mail Manager service.

KVT Audio Gen Service

Purpose	Streams messages from an IMAP4 messaging store to the VP system
Location	VP system PC or remote PC (future release)
Interaction	Exchanges data with IMAP4 server and the VP system.

Note:	The KVT Audio Gen Service must reside on the same PC as the KVT Navigator Service.KVT Database Manager Service

KVT Database Manager Service

Purpose	Holds the system setup and box setup information
Location	VP system PC.
Interaction	Exchanges data with other services, primarily providing data to the Database Administrator application and the Message Status Viewer application.

KVT E-mail Delivery Service

Purpose	Ensures delivery of voice mail messages sent as e-mail messages to the SMTP e-mail server.
Location	VP system PC.
Interaction	Exchanges data with the VM engine and the SMTP e-mail server.

KVT FTP Server Service

Purpose	Communicates with client PCs running VCM and unified messaging features.
Location	VP system PC.
Interaction	Exchanges data with other services and with applications installed on client PCs (application such as VCM, unified messaging, report generation programs, etc).

KVT Navigator Service

Purpose	Supports Single Message Store to an IMAP4 server
Location	VP system PC or remote PC (future release)
Interaction	Exchanges data with IMAP4 server and the VP system.

KVT Report Service

Purpose	Supports Enhanced Customer Service Reports
Location	VP system PC or remote PC (future release)
Interaction	Exchanges data with the VP system and the phone system.

KVT Sendmail Service

Purpose	Provides mail functionality to the VP system
Location	VP system PC or remote PC (future release)
Interaction	Exchanges data with the VP system and an e-mail system.

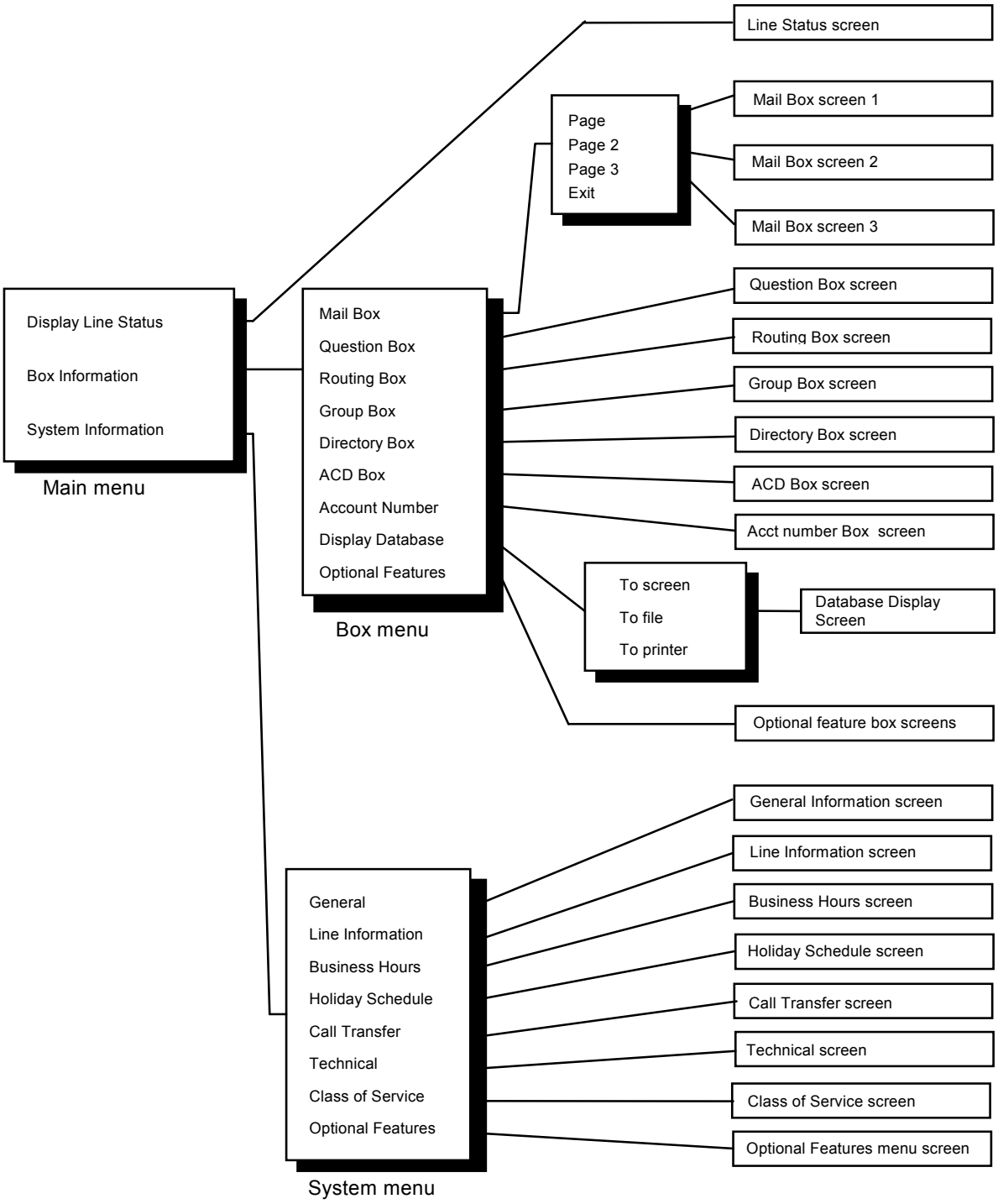
KVT Voice Mail Manager Service

Purpose	Interacts with the GammaLink and Dialogic service hardware to process calls.
Location	VP system PC.
Interaction	Exchanges data with other services, primarily providing data to the Voice Mail Viewer application

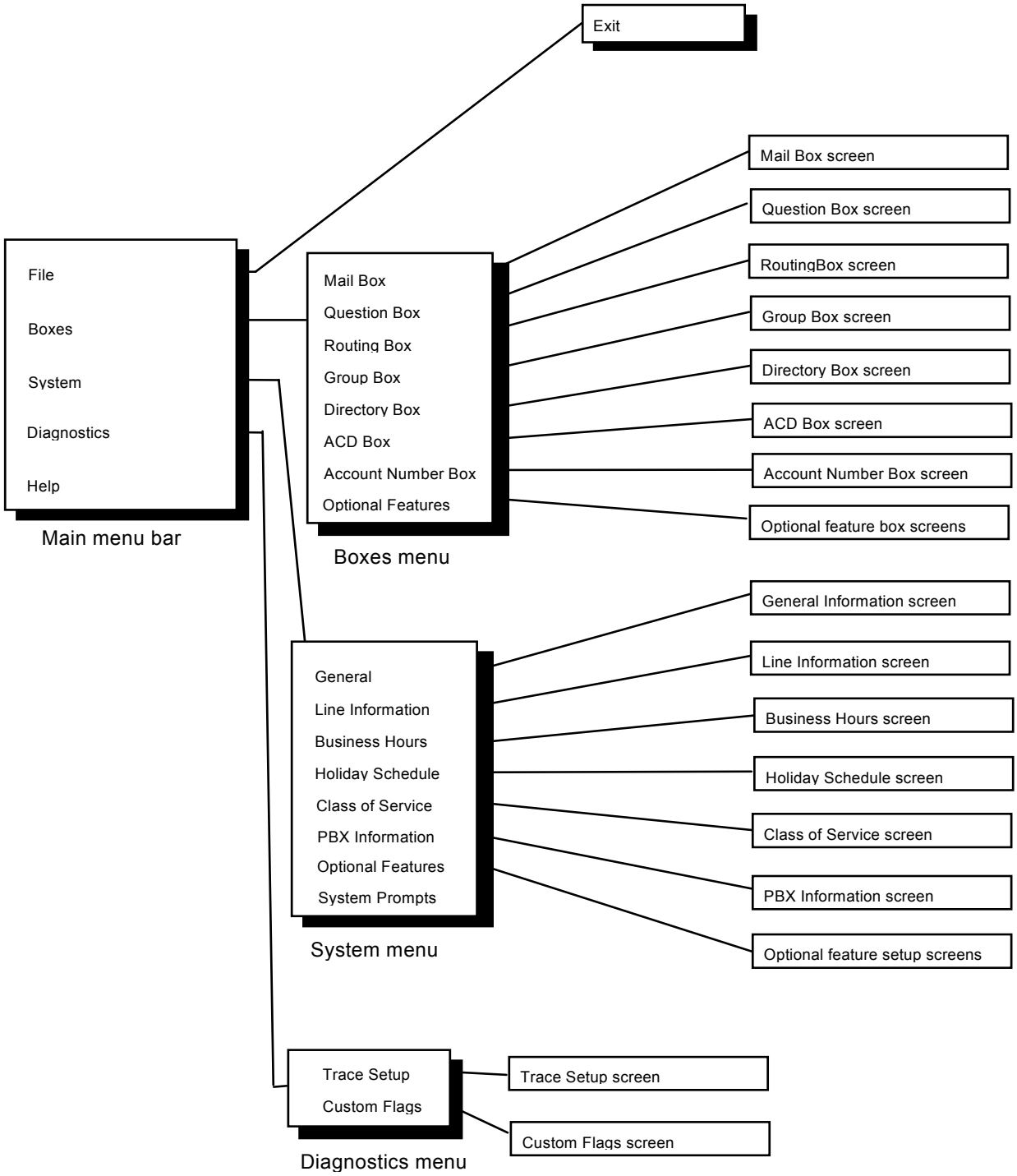
Proxy E-mail Client Service

Purpose	Communicates with the e-mail server and client PCs running unified messaging client software.
Location	VP system PC.
Interaction	Exchanges data with the e-mail server and the KVT Voice Mail Manager service.

1.3 Accessing DOS-based Corporate Office Menu Options



1.4 Accessing Windows-based VP system Menu Options



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2. PREPARING THE SYSTEM

2.1 Understanding Available System Setup Techniques

There are two techniques you can use to set up VP systems:

- Use the program's screen interface to run the System Setup utility, then complete System Information and Box Setup screens. (You may need to attach a laptop to the VP system PC if the system does not have a monitor and/or a keyboard. Procedures are provided in section 10.)
- Call into the VP system and use the teleparameter feature to run the System Setup utility, then enter parameter codes and corresponding values to set up system and box information

Technicians who have experience setting up VP systems may prefer to use the teleparameter feature to make modifications quickly and get the VP system up and running at the customer's site. Detailed instructions on using the teleparameter feature to complete system setup steps are provided in section 11.

Be advised that because the teleparameter setup technique involves inputting codes that represent system parameters and corresponding values to which parameters are to be set, it is a bit more difficult to use effectively if you are unfamiliar with setting up VP systems. For this reason, we recommend that technicians unfamiliar with VP systems refrain from using the teleparameter feature and instead use instructions provided in the following sections to complete all necessary system setup steps through the screen interface.

Note:	If you choose to set up the system using the teleparameter feature, be sure to first review section 1, so you clearly understand the setup of the default database provided with the VP system. For detailed information on using the teleparameter feature, see section 11.

Note that if you choose to set up the system initially using the screen interface (either directly or via a laptop), you can make additional modifications later by simply calling into the VP system and using options on the Supervisor menu (see section 7.11) or using the teleparameter feature (see section 11).

To install, set up, and maintain a VP voice processing system, you need the equipment listed below.

Equipment Needed

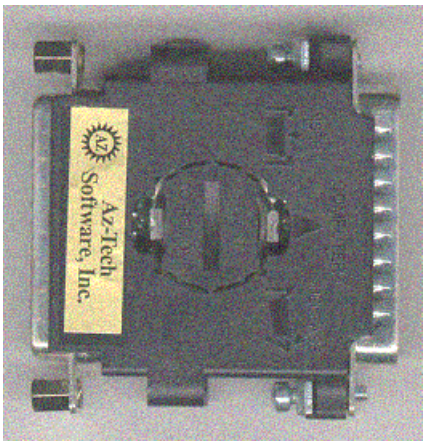
- **VP System Unit**

Note:	If you are installing a VP system purchased as a kit (the software and boards are ***not*** pre-installed in the system), see section 21 for kit installation requirements and procedures. Once you complete procedures provided in section 21 continue with information and procedures provided here.

- **Portable Diskette Drive (only for systems without a diskette drive)**

  Should an unusual situation arise, it may be necessary for you to service VP systems that do not include a diskette drive by attaching a portable diskette drive to the VP system unit. Therefore, we strongly recommended that technicians servicing VP units without diskette drives have access to a portable diskette drive.

- **Authorization Key**
  VP systems only run if the *authorization key* is attached to the PC's parallel port. This key is shipped in the packaging with the VP system. To attach the authorization key, simply plug the key into the parallel port in the back of the PC.



Authorization Key

If you choose to set up the system by connecting a laptop to the VP unit, you need the following additional equipment:

- **Laptop Computer**
- **Null Modem Serial Cable**
- **KeyLink Communications Software** (provided with the VP system)

This additional equipment is necessary to perform screen interface setups on VP systems that do not include a keyboard and monitor.

To set up the system using a laptop, you must use a null modem serial cable to attach the laptop PC to the VP unit. So that the laptop computer can communicate with the VP system unit, you must install KeyLink communication software, provided with the VP system, onto the laptop PC. The KeyLink installation procedure and instructions on using the program are provided in section 10.

Once the system is set up and tested, the system supervisor on-site can maintain the day-to-day aspects of the system (adding, deleting, modifying mailboxes; modifying greetings and call routing; etc.) by simply calling into the system using a telephone. No special teleparameter modification instructions or laptop computers are necessary for regular daily maintenance of the VP system. (See section 7.11 for details.)

2.2 Connecting the VP System to the Telephone System

The VP system unit can be connected directly to local telephone lines, typically Centrex service, or behind a key system or PBX. (For simplicity, the term *PBX* is used herein to mean "PBX or Key System").

2.2.1 CONNECTING DIRECTLY TO THE TELEPHONE LINES

The VP system unit can be connected directly to the telephone lines as shown below.

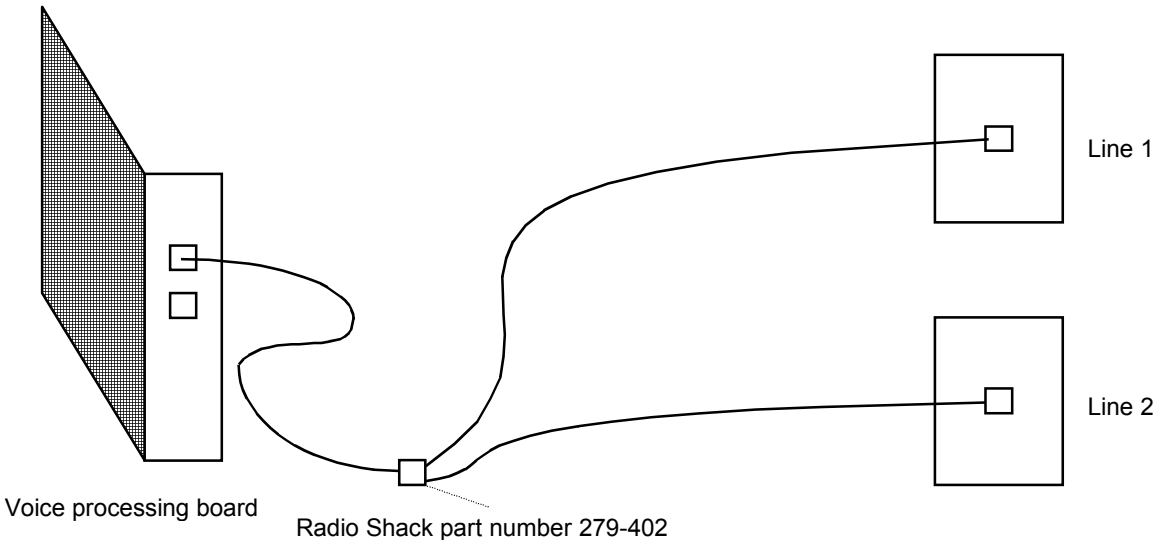


Figure 2-1 Connecting the VP System Directly to Telephone Lines

Note that the modular input connectors on the voice boards are RJ-14 jacks that contain two independent telephone lines. The modular adapter shown (or its equivalent) must be used if the telephone lines are terminated with RJ-11 (single line) jacks.

If you want the VP system to be able to transfer calls, make sure the telephone line has either the call-transfer or three-way calling feature. If you are unsure whether a line has these capabilities, contact the local telephone company.

Local C.O. lines connected to VP should *not* have the call-waiting feature assigned. Once again, if in doubt, contact the local telephone company.

2.2.2 CONNECTING TO A PBX OR KEY SYSTEM

The VP system unit connects to PBX station ports (each line to the VP system unit looks like an extension to the PBX), as shown below. The VP system thus functions as one or more extensions on the PBX.

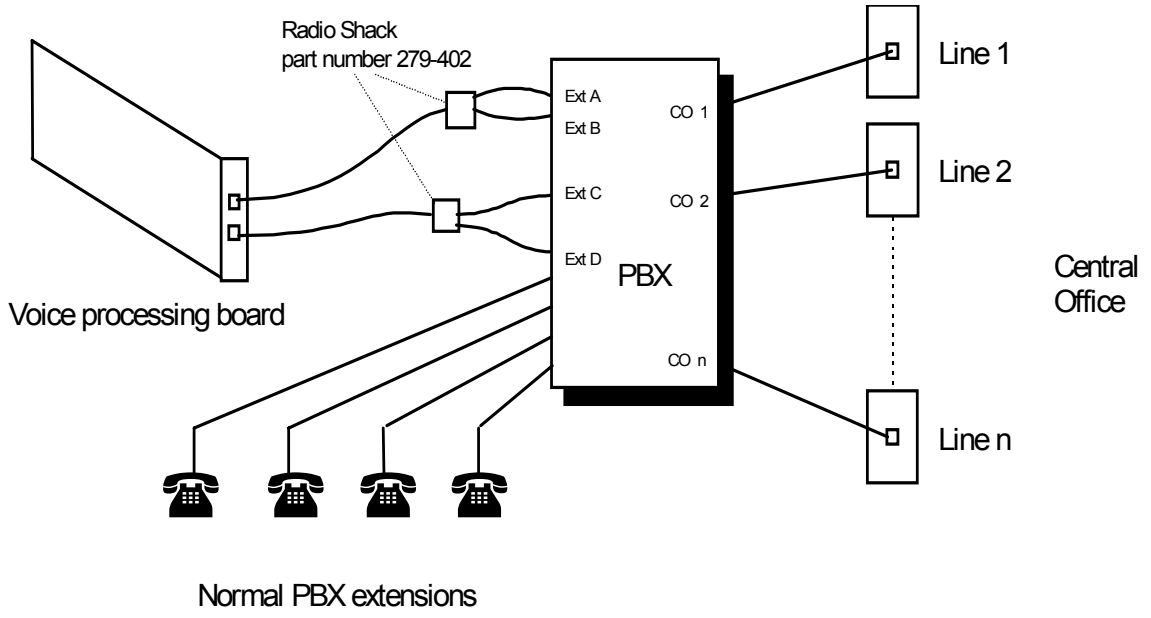


Figure 2-2 Connecting the VP System Behind a Key-System or PBX

Note that the modular input connectors on the voice boards are RJ-14 jacks, which contain two independent telephone lines. The modular adapter shown (or its equivalent) must be used if the PBX extensions are terminated with RJ-11 (single line) jacks.

Unless special digital voice boards are installed in VP system PC, each line to the VP system unit requires an industry-standard-telephone port on the PBX (this is also known by other names such as *analog port, 2500 set interface, SLT port*). Some telephone systems do not provide single-line-telephone ports, and they require a special analog interface box between the PBX and the voice mail system, as shown below. If you have questions on the type of ports provided on the phone system, contact the local PBX manufacturer's representative. For information on digital voice boards, contact a VP system sales representative.

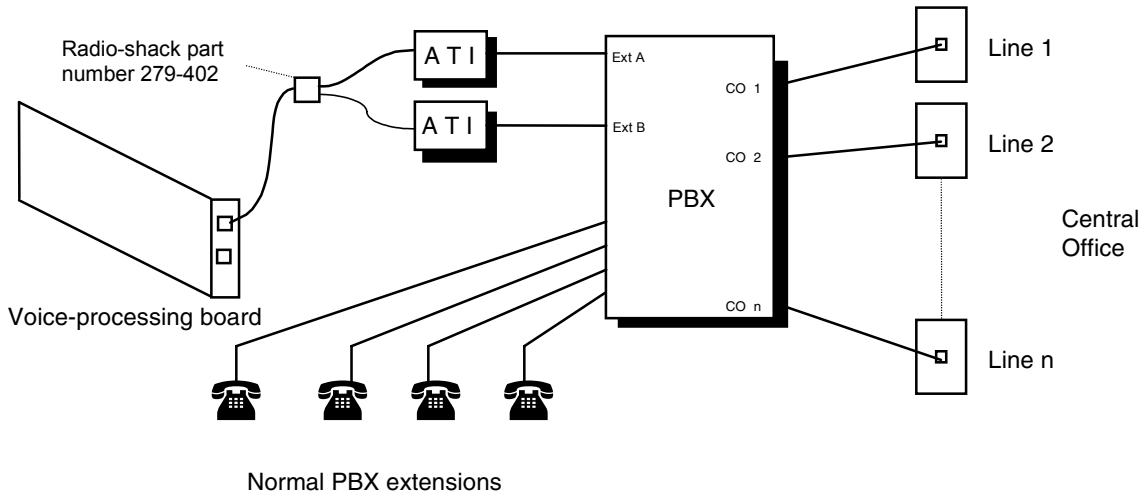


Figure 2-3 Connecting the VP System to a PBX via External Analog Telephone Interface (ATI) Equipment

2.2.3 CONNECTING THE SERIAL CABLE BETWEEN THE VP SYSTEM AND PBX

If you are establishing a serial integration, you must attach a serial cable between the VP system and the PBX. The VP system unit is set up to use the COM 1 port to communicate with the phone system. Therefore, you should connect the serial cable to the VP unit's **COM 1** port.

Consult the phone system documentation for instructions on attaching the serial cable to the phone system COM port.

Note:	If the phone system you are working with is a Comdial DSU (Impression 24, 48, 72), attach the serial cable to **COM 1** on the DSU. If the phone system is a DSUII (Impact 24, 48, 72), attach the serial cable to **COM 3** on the DSUII.

Typical Setup

For typical automated attendant service, program the PBX so that incoming calls are routed via the PBX to ring the VP system. The VP system answers the call and asks the caller to enter the required extension (or mailbox) number. The caller enters the number, and the VP system transfers the call just as a live attendant would.

2.2.4 MAKING LOCAL CONNECTIONS TO THE BOARD

When you create mailboxes, routing boxes, or other boxes on the system, you have the option to record names and greetings at the time you create the box. You make these recordings by selecting from recording options available directly from box setup screens. On DOS-based VP systems, to make recordings from the VP system PC, you must attach a telephone directly to the voice board in the VP system using one of the two techniques detailed below.

Using Two Telephone Lines

To make a local connection to the voice board in the VP system, connect one line (call it *line A*) to the upper RJ-14 jack on the voice board. Connect the other line (*line B*) to a regular telephone, as illustrated in Figure 2-4.

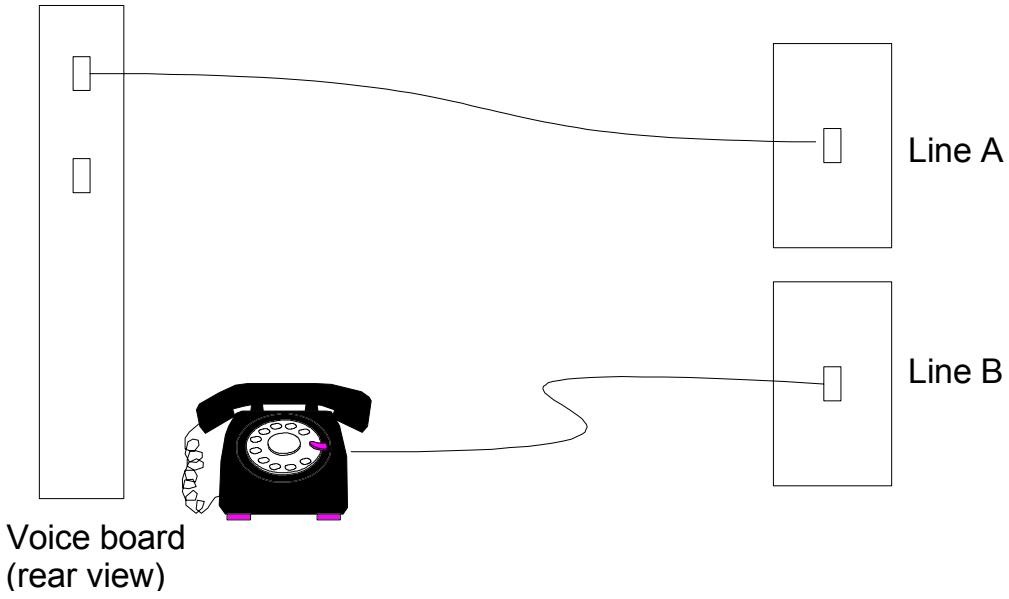


Figure 2-4 Using Two Telephone Lines to Record

Using an Audio Coupler or Single Channel Audio Connector

By using an audio coupler or single channel audio connector, you can play and record prompts and greetings from a DOS-based VP system PC without using two telephone lines.

> **Note:** Audio couplers and single channel audio connectors function only with systems using Rhetorex voice boards.

To use a microphone or local speaker to play or record prompts or greetings, connect the device to the PC by following the manufacturer's instructions.

To connect an audio coupler to the Rhetorex board, refer to Figure 2-5. This illustration identifies how you connect all devices.

To connect a single channel audio connector, insert the 3 pin audio connector into the Rhetorex board on the right side of the board below the RJ14 connector (when viewing the board with the bracket to the right). Next, connect the output, which is a small, silver phone jack, to the speaker. Finally, connect the RCA jack (the remaining jack) to the recorder.

When using either an audio coupler or single channel audio connector with the VP system, you must include the parameter LOCAL SPKR in the VM.CFG configuration file (see section 12). If you are connecting to a Rhetorex 408 or 432 board, you must also change the VM.CFG file parameter DATABASE LINE from 1 to **4**.

> **Note:** When making recordings on DOS-based VP systems using an audio coupler or single channel audio connector, record using the MICROPHONE option.

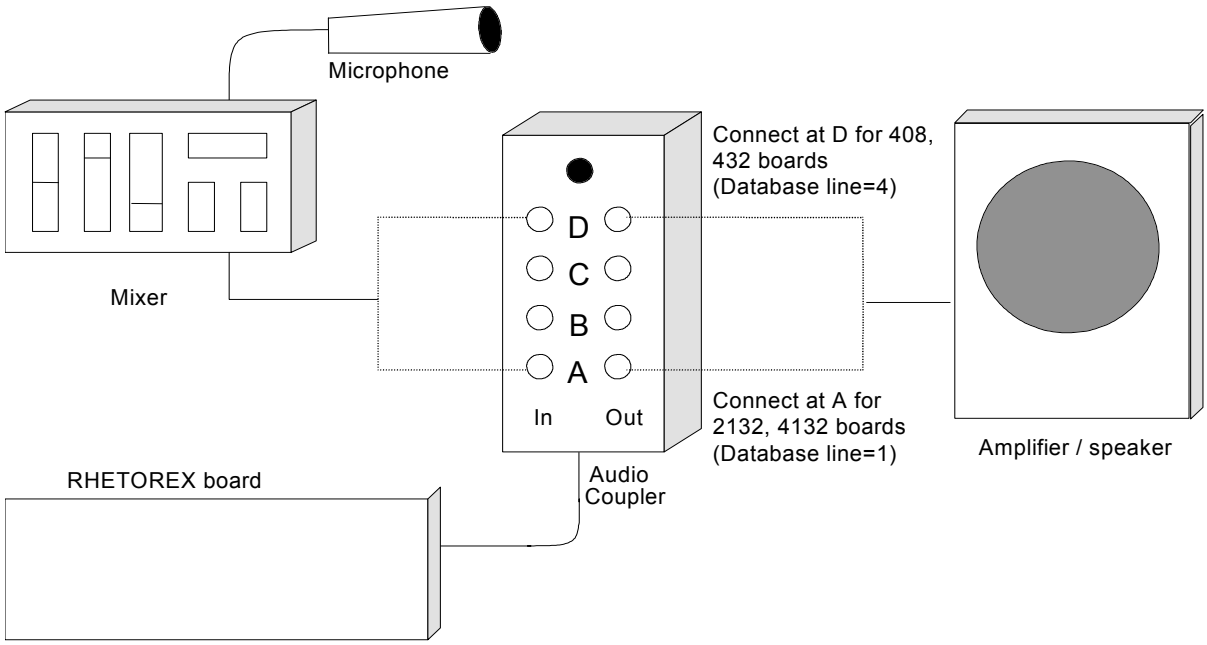


Figure 2-5 Recording via an Audio Coupler on a System with Rhetorex Boards

2.3 Moving Greetings, Prompts, Messages, and Boxes from DOS to Windows-based VP Systems

BE ADVISED:

The DOS-based VP system must be running VP system software version 8.2 or higher. If the DOS-based system is running a VP system version prior to 8.2, you must upgrade the VP system software to version 8.2 or higher before moving greetings, prompts, messages, and mailboxes from DOS-based to Windows 2000-based systems. In addition, the Windows 2000-based system must be in legacy configuration.

The Windows-based VP system includes a conversion utility that allows you to easily move greetings, prompts, messages, and boxes from DOS-based VP systems running software version 8.2 or higher to Windows-based VP systems. To use the utility to convert and copy files between two separate PCs, you back up each subdirectory (and its files) indicated in step 3 below from the DOS-based PC onto a tape backup or Zip disk. Then, restore the directories and files from that media into subdirectories you create on the Windows machine. Do not copy DOS-based files directly into the \VM, \VM\M, or \VM\P subdirectories on the Windows machine. Instead, create a subdirectory structure such as the \VMDOS, \VMDOS\M, and \VMDOS\P on the Windows machine and restore the files into their associated subdirectories. Once the conversion is complete (and tested), you can delete the directory structure you created and the DOS-based files it contains from the Windows machine.

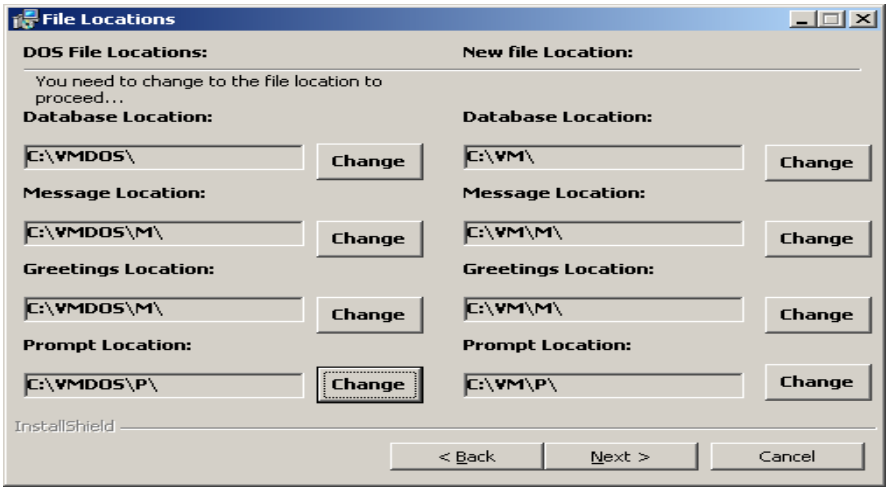
The conversion utility is located on the VP system CD-ROM:
10.3: \VM\VP System Server 10.3\DOS Conversion.msi
10.4: \10.4.63 Voice Processing System\VM\DOS Conversion.msi

Note: The conversion process may be lengthy depending on the number of messages, greetings, and names in the C:\VM\M subdirectory

Note: If the Windows-based10.3 VP system was originally installed as a legacy system, there will be an icon on the desktop for this program.

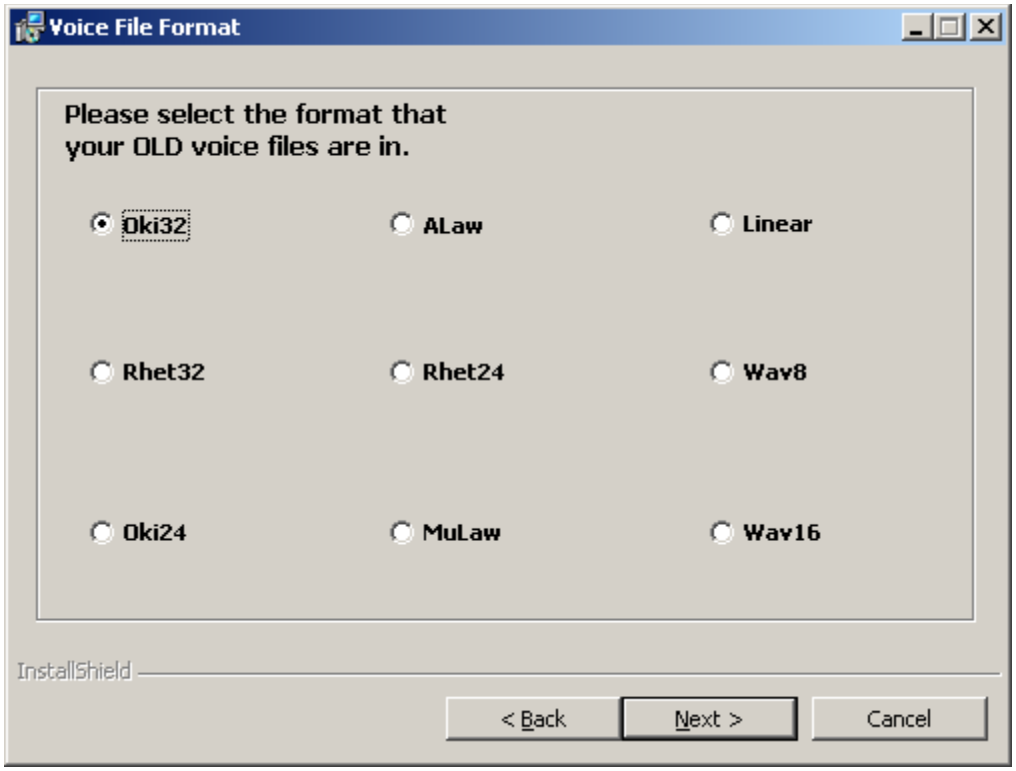
To transfer files from a DOS-based VP system to a Windows-based VP system:

1. Shut down the VP system services following the instructions in section 2.5, by typing in STOPVM at a command prompt in the C:\VM folder. Additionally, go to Services and manually stop the DIALOGIC SYSTEM SERVICE.
2. Create the following directories on the Windows machine: \VMDOS, \VMDOS\M, \VMDOS\P. Back up and restore or copy files from the \VM, \VM\M, and \VM\P directories on the DOS-based machine into their associated \VMDOS directories on the Windows machine.
3. Locate the file DOS CONVERSION.MSI on the CDROM and double-click it.
4. On the DOS CONVERSION INSTALLSHIELD WIZARD screen, select Next.
5. On the FILE LOCATIONS screen, in the DOS File Locations fields, indicate the complete paths to the DOS-based VP system database (.DVM) files, message files, greeting files, and prompt files as they are stored on the Windows-based PC. If you do not need to convert the prompts from the old system, you may specify an empty folder for the C:\VMOLD\P folder. Refer to section 16 for information on the default VP system file organization structure. In the New File Location fields, indicate the complete paths to the database files, message files, greeting files, and prompt files as they are to be stored on the Windows-based VP system. The default directory structure is indicated. You must modify the path designations as necessary. When you have made the necessary modifications, select Next.



WARNING:
To avoid file conversion loops, the DOS file locations you specify **cannot** have subdirectories that contain files other than the ones to be converted, and the new file locations **cannot** be subdirectories of the DOS file locations.

6. On the VOICE FILE FORMAT screen, indicate the format of the DOS-based VP system files. In most cases, the format for files from DOS-based VP systems with Rhetorex voice boards will be Rhet32 and the format for files from DOS-based VP systems with Dialogic voice boards will be Oki32. When you have indicated the appropriate format, select Next.



7. On the READY TO INSTALL THE PROGRAM screen, select Install.
8. On the INSTALLSHIELD WIZARD COMPLETED screen, select Finish.
9. To complete the conversion process, select Yes to restart the system when prompted.

> **Note:** Be advised that fax documents stored in Fax boxes on DOS-based VP systems are in a .PCX file format. On Windows 2000-based systems, however, these documents must be stored in a .TIF file format. Therefore, you must re-enter fax documents into the Windows 2000-based system. See section 24.3 for details.

2.4 Adding Features and Ports

2.4.1 UNDERSTANDING SPECIAL ACTIVATION CODES TO ADD FEATURES AND PORTS

All VP system software actually includes all program functionality, including capabilities available only in optional add-on modules and the ability to process calls on the maximum ports available, typically 32 on DOS-based systems and 64 on Windows-based systems. Your access to some of this functionality is controlled by activation codes and by the key that is attached to the parallel port on the back of the VP system PC. These activation codes and the key control the VP system software on the PC, so the software will provide users access to only the optional features or number of ports that were purchased with the system.

To upgrade a VP system so additional ports are available or so access to certain features is allowed, you must obtain a code from your sales or technical support person and input that code on the VP system. The type of code you use depends on the type of VP system you have and the capabilities you are trying to add. Once you obtain your code, enter it by following the appropriate procedure below.

2.4.2 ENTERING A RENEW CODE

You enter a Renew code by running Renew utility. Use one of the procedures detailed below.

To run Renew on DOS-based VP Systems:

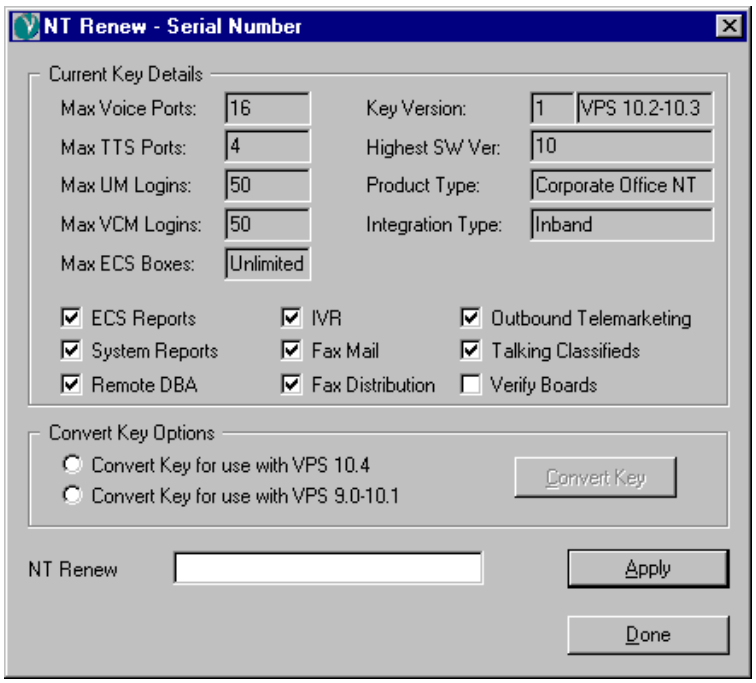
> **Note:**If you are entering a Renew code to eliminate the 5-only limitation on Routing, Question, ACD, Group, and Account boxes, the system must be running VP system software version 8.2 revision 5B or higher. If it is not, the limitation will not be removed, even after you enter the Renew code.

1. Before you can obtain a Renew code and run the Renew program, you must supply a VP system technical or sales person with 1) the serial number of your key and 2) a Renew Use number. To obtain these numbers, shut down the VP system if it is running. Change to the \VM directory on the VP system, type `RENEW` then press <Enter>. The screen displays the serial number of the key attached to the PC, a Use number, and the current system date. Note these numbers and relay them to the technical or sales person with whom you are working. You can exit this screen by pressing <Esc> until you return to a DOS prompt.

> **Note:**If you have a certain type of key, it may be necessary for you to initiate the Renew code program by typing RENEWOLD at the \VM prompt (instead of typing RENEW). If it is necessary for you to type RENEWOLD to initiate the program, you will be instructed to do by the technical/sales person from whom you obtained the Renew code. On the lines corresponding to each day of the week, write in 24-hour format (for example 8:00 PM is 20:00) the normal hours the company opens and closes for business. If the business is open 24 hours on a particular day, enter 0:00 as the **DAY SERVICE BEGINS** time and 24:00 as the **DAY SERVICE ENDS** time. If the business is closed the entire day on a particular day, enter 0:00 on both lines.To enter the 15-digit Renew code you are provided (with no spaces or hypens), shut down the VP system if it is running. Change to the \VM directory on the VP system, type `renew` then press <Enter>. From the screen that displays the serial number of the key attached to the PC, the Use number, and the current system date, press <Enter> again. Type the code you were provided when prompted. Press <Enter> when you finish.

To run Renew on Windows-based VP Systems:

1. Before you can obtain a Renew code and run the Renew program, you must supply a VP system technical or sales person with the serial number of your key. To obtain this number, open Windows Explorer or some other type of file manager program and access the \VM directory. Double-click on the file NTRENEW.EXE. A dialog box similar to that shown below displays. The serial number is shown near the top of the screen and the current system's statistics and optional module capabilities are identified. Note the serial number and relay it to the technical or sales person with whom you are working. You can exit this screen by selecting the Done button.



2. Access the NT RENEW screen using the procedure detailed in step 1. Type the 21-digit code you are provided (with or without the hyphens) in the NT RENEW field.
3. Select the Apply button. The screen updates to identify the new system's statistics and access to optional modules. Exit the screen by selecting the Done button. For the new capabilities to take effect, you must shut down and restart the VP system.

> **Note:** On Windows-based VP systems, if the original system ordered is less than 16 ports, the authorization key shipped with the system is programmed to authorize a maximum of 16 voice mail ports. If the original system ordered is 16 or more ports, the key is programmed to authorize a maximum of 32 voice mail ports. Also, all keys are programmed to authorize a maximum of 5 VCM users unless more user licenses are purchased at the time of the original order.
> A key cannot be re-programmed using the procedure discussed above for authorizations beyond the maximums originally programmed. To add ports or VCM users beyond the maximums originally programmed on the key, you must replace the original key with a new key. Contact the VP system sales representative for additional information.

2.4.3 ENTERING ACTIVATION CODES

On some VP systems, the codes listed below are used to activate the capabilities indicated next to them. If you purchase a kit VP system and you need to enter one or more of these codes after installing the software (to activate a certain capability), you can find the code(s) printed on the invoice shipped with the system.

- SWITCHES.TXT: Fax Distribution, Fax Mail, Talking Classifieds, IVR, Outbound Telemarketing
- LOGINS.TXT: VCM (DOS-based VP systems only)
- PBXLINK.TXT: Serial-port integration

- NUMLINES.TXT: Port additions when additional boards are added

You enter codes for NUMLINES.TXT, SWITCHES.TXT, LOGINS.TXT, and PBXLINK.TXT using teleparameters 4001, 4002, 4003, and 4004, respectively. See section 11.2 for instructions on using the teleparameter feature.

On DOS-based VP systems you can also use the VMCODES program to enter codes for NUMLINES.TXT, SWITCHES.TXT, LOGINS.TXT, and PBXLINK.TXT. Use the following procedure:

1. Shut down the VP system if it is running.
2. Change to the directory in which the VP system is installed (by default, the \VM directory).
3. Type VMCODES then press <Enter>.
4. From the list that displays, type a number to select the code you need to input.
5. Enter the authorization number, then press <Enter>. A message displays, indicating the authorization number has been written to the appropriate file.
6. Repeat the above steps for each code you must input.

2.5 Starting the VP System, Logging in, and Shutting It Down

By default, all VP systems are configured to start running the voice processing system automatically upon boot-up. Should you exit the system to perform maintenance or make configuration file changes, simply restart the VP system PC. The VP system loads after the restart.

To manually start the VP system:

- On DOS-based VP systems, you change to the \VM directory and type GOVM then press <Enter>.
- On Windows-based VP systems, a command named STARTVM is available in the \VM directory. When you run this command, the VP system services are started in the necessary order. You can run this command by double-clicking on the file STARTVM through Windows Explorer or another type of file management program.

Before you can access the VP system database, you must log in by entering a password. On DOS-based VP systems, you access the password entry field by pressing <F10> from the LINE STATUS screen (the screen displayed when the VP system starts). On Windows-based VP systems, you access the password entry field by clicking on the DATABASE ADMINISTRATOR icon on the Windows desktop.

There are two levels of password security, the *Customer* level (referred to as the *Administrator* level on Windows-based systems) and the *Technician* level. If you enter the Customer / Administrator password, you are provided access to everything on the VP system except the technical setup fields on several system setup screens. Though you are able to view the technical information, you cannot modify it. If you enter the Technician password, you are provided access to everything on the VP system. The default Customer / Administrator password is blank, and the default Technician password is **1234**.

To shut down the VP system:

- To shut down a DOS-based VP system, press <Esc>. At the prompt to enter a password, enter either the Customer or Technician password. The system stops processing new calls and waits while calls in progress are completed. Once all ports are clear, the system shuts down the VP system software program.

If absolutely necessary, you can force a DOS-based VP system to shut down immediately by pressing <F10> when prompted. Use caution when forcing the system to immediately shut down, as all calls in progress are immediately disconnected.

- To shut down a Windows-based VP system, use the command named STOPVM, available in the \VM directory. When you run this command, the VP system services are stopped in the necessary order. You can run this command by double-clicking on the file STOPVM through Windows Explorer or another type of file management program.

Be advised that when you stop the KVT VOICE MAIL MANAGER service, all calls currently being handled by the VP system are immediately terminated. To exit the SERVICES screen, click on the Close button.

2.6 Upgrading VP Systems to the Latest Software Versions

You can upgrade DOS- and Windows-based VP systems to the latest software versions often at no charge by obtaining the latest software from your VP system sales representative. This section identifies how you determine the current version of installed VP system software on a system and the type of voice boards the system is using. When upgrading systems to the latest versions, you must be sure to use upgrade software that is appropriate for the voice board type installed in the VP system PC (Dialogic or Rhetorex). You must upgrade a Dialogic-based VP system with Dialogic-based VP system upgrade software, not Rhetorex, and vice versa. If you install the wrong type of upgrade software on the VP system, the system will no longer be able to voice prompts, messages, and greetings appropriately.

2.6.1 DETERMINING THE CURRENT SOFTWARE VERSION

When ordering a software upgrade, you must identify the currently installed VP system software version number and the type of voice boards installed. You can find this information by following the procedures below.

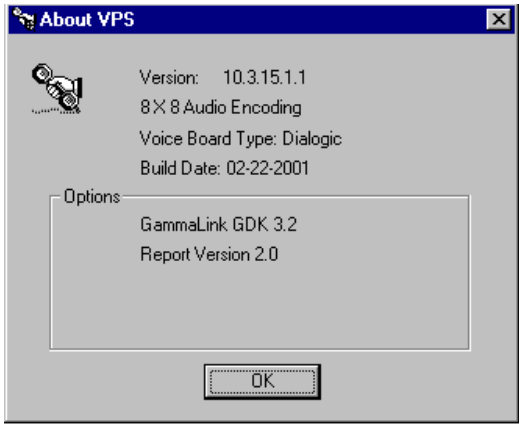
To determine the current software version and installed board type on DOS-based VP systems:

From the LINE STATUS screen press <Alt-F4>. An Advisory displays on the screen in the area below the Line Status area of the screen. The display contains the following information about the system:

- The VP system software version number, displayed for example as:**V:8.3**
- The release level of the version, displayed, displayed for example as:**R:2**
- The software level of the operating system, displayed for example as:**DOS:6.22**
- The type and software level of the voice board driver, displayed for example as:**H:5.38**
  - If the version is **4.xx** the system includes **Dialogic** boards
  - If the version is **5.xx** the system includes **Rhetorex** boards
  - If the version is **7.xx** the system includes **Rhetorex digital (IVPC)** boards

To determine the current software version and installed board type on Windows-based VP systems:

1. Access the \VM directory in Windows Explorer or some type of file management program.
2. Double-click on the file ABOUT.EXE. The ABOUT VPS screen displays.



This screen identifies:

- The VP system software version and build number, displayed for example as:**10.3.15.1.1**
- The type of audio encoding, displayed for example as:**8 X 8 Audio Encoding**
- The type of voice board, displayed for example as:**Dialogic**
- The date of the VP system software build, displayed for example as:**02-22-2001**
- Any optional modules installed on the VP system and the version (where applicable):
  - The type and software level of any installed fax board drivers, displayed for example as: **GammaLink GDK 3.2**
  - The VP system Reports software version number, displayed for example as: **Report Version 2.0**

To determine the current software version and options on unified messaging Client PCs:

1. From the Client desktop, click on the Start button and select Programs / Voice Messaging / About Voice Messaging.
2. The ABOUT VOICE MESSAGING screen displays.

This screen identifies:

- The UM Client version and build number, displayed for example as:**2.1.15.1.1**
- The date of the Client software build, displayed for example as:**02-27-2001**
- Any optional modules installed on the Client PC and the version (where applicable)

2.6.2 UPGRADING DOS-BASED VP SYSTEMS

Sites running DOS-based VP system versions prior to the latest available revision can obtain system software version upgrades by contacting VP system sales or technical support representatives. Use the procedure below to upgrade older versions to the latest available version once you receive an upgrade package.

To upgrade DOS-based VP System software to the version supplied in the upgrade package:

1. Shut down the DOS-based VP system by pressing <Esc>. At the prompt to enter a password, enter either the Customer or Technician password. The system stops processing new calls and waits while calls in progress are completed. Once all ports are clear, the system shuts down the VP system software program.

   If absolutely necessary, you can force a DOS-based VP system to shut down immediately by pressing <F10> when prompted. Use caution when forcing the system to immediately shut down, as all calls in progress are immediately disconnected.
2. Follow the procedure in section 14.1 of the VP system *Installation and Maintenance Manual* to make a complete back up of the existing VP system. It may be necessary for you to restore files from this backup in the unlikely event you experience problems during the upgrade process.
3. Insert Disk 1 from the set of VP system installation diskettes shipped with the VP system software upgrade package.
4. From the DOS prompt, type `CD\VM` then press <Enter> to change to the \VM directory.
5. Type `INSTALL` then press <Enter> to start the installation program.
6. From the list of options that display, highlight UPGRADE OLD VERSION then press <Enter>.
7. Follow the prompts to complete the upgrade. As prompted, insert the diskettes provided in the upgrade package.
8. When the upgrade completes, reboot the VP system PC as prompted. Once the PC reboots, the VP system starts automatically.

If you experience problems after you upgrade the system, you can restore the previous system software backup that you created in the procedure above. For information on restoring system backups, refer to section 14.2.

2.6.3 UPGRADING WINDOWS-BASED VP SYSTEMS

Sites running Windows-based VP system versions prior to the latest available revision can obtain system software version upgrades by contacting VP system sales or technical support representatives. Because the upgrade procedures for Windows-based systems differ depending on the version currently installed at the site, the instructions you should use when performing the upgrade will be enclosed with the shipment containing the upgrade CD.

As with any software upgrade, it is imperative you create a comprehensive system backup before beginning the upgrade procedure. Depending on the upgrade you are performing, you may be prompted to allow the upgrade routine create this system backup for you. Consult the upgrade instructions for details on whether the system backup is automated during the upgrade routine, or whether you must perform a separate backup yourself, prior to running the upgrade.

2.7 Collecting Information Needed for New VP System Setups

2.7.1 APPLICATION AND USER SETUP INFORMATION

While setting up the VP system, you may need to adjust default settings for the customer's regular business open hours and business closed hours. You also need to set up Routing boxes to handle incoming calls and set up mailboxes for subscribers who will be using the system. The following worksheets are provided to help the installing technician collect this information from the system supervisor.

Business Hours/Holiday Worksheet

	Day Service Begins	Day Service Ends	Lunch Service Begins	Lunch Service Ends
Sunday				
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				

Holidays		Month	Day	Action	Box
1	On			answer calls by routing to box	
2	On			answer calls by routing to box	
3	On			answer calls by routing to box	
4	On			answer calls by routing to box	
5	On			answer calls by routing to box	
6	On			answer calls by routing to box	
7	On			answer calls by routing to box	
8	On			answer calls by routing to box	
9	On			answer calls by routing to box	
10	On			answer calls by routing to box	
11	On			answer calls by routing to box	
12	On			answer calls by routing to box	
13	On			answer calls by routing to box	
14	On			answer calls by routing to box	

On the lines corresponding to each day of the week, write in 24-hour format (for example 8:00pm is 20:00) the normal hours the company opens and closes for business. If the business is open 24 hours on a particular day, enter 0:00 as the DAY SERVICE BEGINS time and 24:00 as the DAY SERVICE ENDS time. If the business is closed the entire day on a particular day,enter 0:00 on both lines.

Indicate, if appropriate, any hour(s) during which the business closes during the day, for lunch or any other reason.

Indicate each holiday on which the business is closed by writing the month and day. Do not complete the INITIAL BOX field.

Subscriber Mailbox Information Worksheet

(System Supervisor Completes)

Photocopy this page, then complete the form for each subscriber who will have a mailbox.

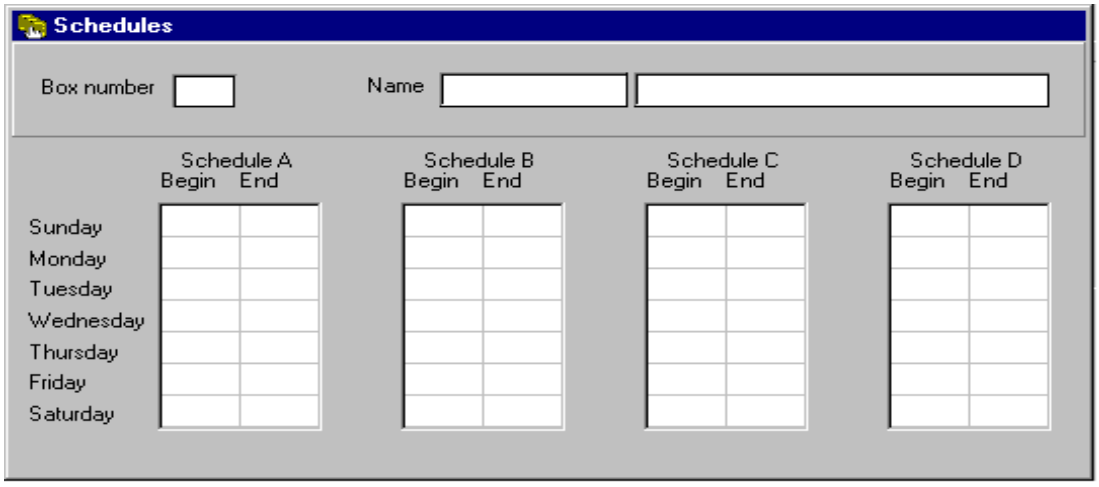
Subscriber Data	
First name:	
Last name:	
Extension number:	
Should the system announce the caller's name to the subscriber upon transfer?	
Should all conversations be recorded?	
Paging Data	(complete only if subscriber is to use the feature)
Pager number	
Pager type (circle one)	TONE DIGITAL
Paging schedule (circle one)	Always During office open hours During closed hours Schedule*: A B C D
Auto Message Forward and Message Delivery Data	(complete only if subscriber is to use these features)
Auto forward new messages:	To box:_____ After _____hours
Auto forward new messages schedule (circle one):	Always During office open hours During closed hours Schedule*: A B C D
Message delivery schedule 1:	Number to call:_____
When should delivery be active? (circle one):	Always During office open hours During closed hours Schedule*: A B C D
Message delivery schedule 2:	Number to call:_____
When should delivery be active? (circle one):	Always During office open hours During closed hours Schedule*: A B C D
Message delivery schedule 3:	Number to call:_____
When should delivery be active? (circle one):	Always During office open hours During closed hours Schedule*: A B C D
Message delivery schedule 4:	Number to call:_____
When should delivery be active? (circle one):	Always During office open hours During closed hours Schedule*: A B C D
Message delivery schedule 5:	Number to call:_____
When should delivery be active? (circle one):	Always During office open hours During closed hours Schedule*: A B C D

*If specifying a particular schedule, complete a subscriber schedule worksheet for the individual.

Subscriber Schedule Worksheet (System Supervisor Completes)

Photocopy this page, then complete the form for each subscriber who is using the Paging, Auto Message Forwarding, or Message Delivery out-calling features according to a particular schedule, as indicated on his/her Subscriber Mailbox Information sheet.

You can designate up to 4 different schedules below, then apply one schedule to each out-calling feature the subscriber will be using. Enter information for 1 to 4 schedules below in 24-hour format (for example 8:00 PM is 20:00). You do not need to complete the **BOX NUMBER** field.



Routing Worksheet (System Supervisor Completes)

See section 5.7 to familiarize yourself with the function of Routing boxes. This section also provides a sample of greetings that are typically recorded in the 3 Routing boxes pre-configured on VP systems. After reviewing this information, complete this worksheet to indicate the wording for the greetings you want this VP system to voice.

Note that you should indicate in your greeting any single-digit call routing options you want to provide to callers (*"...Press 2 for Sales..."*) and identify the extension to which a caller pressing that single-digit number should be transferred.

Office Open Greeting:

Single digit routing paths:

Office Closed Greeting:

Single digit routing paths:

Office Holiday Greeting:

Single digit routing paths:

2.7.2 PHONE SYSTEM INFORMATION

When a company hires a new attendant, they must train the individual on how to work with the telephone system (for example, how to transfer calls, how to get a line on hold back if the called party is busy, etc.). The same information must be supplied to the VP system.

When you run the PBX Setup utility (see section 3), you are prompted to indicate which telephone system you are using with this VP system. You specify the telephone system by choosing it from a list of systems, which is shown below. If the customer's telephone system is on this list when you select it during Setup, the VP system pre-loads specific configuration information to set up (or "train") the VP system to work with the specific telephone system.

Note: Not all integrations listed below are available on all VP systems.

• Atlas 200	• Atlas 50
• Centrex / VoiceBridge / Calista Box /4X4 / SMDI Integration	• Comdial DigiTech, Impact, DSU, DSU II - Serial Integration - Both Analog and Digital (IVPC) Systems
• Comdial DXP, DXP Plus - Serial Integration - Both Analog and Digital (IVPC) Systems	• Comdial DX-80
• Comdial Executech 2000	• Comdial FX, FXS, FXT
• Comdial Unisyn	• Cortelco Aries
• Encore CX - ECX 1832 / 3672 / 36112	• Ericsson MD-110
• Fujitsu 9600 with Serial Integration	• Fujitsu Allegra 26
• Fujitsu Series 3 / Starlog	• Fujitsu Starlog
• Harris 20/20	• Harris Intellicom 2000 - DOS & NT Versions
• Harris Intellicom 500 - DOS & NT Versions	• Hitachi HCX5000
• Intertel GX152D	• Isoetec IDS 108 / 228
• Isoetec System 96	• ITT / Cortelco System 3100 / Cortelco Millennium
• ITT ECS 4.02P	• ITT ECS 6.3
• Iwatsu ADIX	• Iwatsu ZT-D
• Lucent Definity G3 - Calista Box - Vectoring - Bridged Mode	• Lucent Definity G3 - No Voice Bridge
• Lucent Definity G3 - Voice Bridge - Vectoring - Bridged Mode	• Lucent Definity G3 - VoiceBridge
• Lucent Definity Pro Logic	• Lucent Merlin II
• Lucent Merlin Legend	• Lucent Partner ACS
• Lucent Partner Endeavor	• Lucent Partner II
• Lucent Partner Plus	• Lucent System 25

• Lucent System 75	• Lucent System 85 and Definity Generic 2 - VoiceBridge
• Mitel COV with D/42d-SX Voice Boards	• Mitel SX200 PABX w/ONS Integration
• Mitel SX200 Light with COV Integration	• Mitel SX200 Light with DNIC Integration
• Mitel SX200 Light with ONS Integration	• Mitel SX2000 and SX2000 Light - DNIC - Calista 4x4 - DOS & NT
• Mitel SX2000 and SX2000 Light with COV Integration	• Mitel SX200D with COV Integration
• Mitel SX200D with ONS Integration	• Mitel SX50 - DNIC - Calista 4x4 - DOS
• Mitel SX50 - DNIC - Calista 4x4 - NT	• Mitel SX50 with COV Integration
• NEC Electra Professional Level I	• NEC Electra Professional Level II
• NEC Mark II	• NEC NEAX-1400 IMS
• NEC NEAX-2000	• NEC NEAX-2400 Serial Integration
• Nitsuko DSO-1 / ONYX / 124i / 384i	• Northern Telecom Meridian 1 - Calista - Vectoring - Bridged Mode
• Northern Telecom Norstar - Calista 4x4 DOS & NT	• Northern Telecom Norstar - w/VMI Adapters
• Northern Telecom Norstar D42NS	• Northern Telecom SL-1 and Meridian-1/SL-1
• Panasonic 1232 - Analog	• Panasonic DBS
• Panasonic KXT-336	• Panasonic KX-TD 1232 Digital
• Panther II 820 / 1032 / 2064 Release IV	• Philips SOPHO-S
• Premier ESP / Intertel GMX	• Redwood 3.2
• Rolm 8000 Series CBX w/ VoiceBridge	• Rolm 9000 / 9751 Series CBX - VoiceBridge
• Rolm 9200 BCS / Siemens HCM 200	• Rolm 9751 Release 9006I - Inband
• Samsung Prostar 56EX / 120MX	• Samsung Prostar DCS - Digital
• Siemens Hicom 150E / 150H	• Siemens Hicom 300E
• Siemens Saturn I, II, III	• Southwestern Bell Landmark DKS 308 / 616
• Sprint Protégé	• SRX/Vision
• Sun Moon Star	• Tadiran Coral 9.87
• Tadiran Coral I, II, & III	• Tadiran Coral I, II, & III E&M Inband with VoicePro
• Tadiran Coral I, II, & III with SMDI	• Telrad 2464
• Telrad Digital Key BX, 200 Digital	• Toshiba DK-16 / 24 / 56 / 96
• Toshiba DK-280	• Toshiba Perception E
• Toshiba Perception EX	• Toshiba Perception I & II
• Toshiba Strata E	• Vodavi DHS
• Vodavi Infinite DVX1, DVX2, & DVX3	• Vodavi Starplus 2448EX
• Vodavi Starplus 96EX	• Vodavi Starplus Digital
• Win 100D	•

If the customer's telephone system is not on the list, you may need to manually input the configuration information that sets up the VP system to work with the specific phone system. You can gather all configuration information you will need to enter by working with the telephone system to answer the following questions:

- If you are on a call on a single-line telephone and you want to transfer the call to someone else, what action do you take?
- Once you have initiated the transfer and spoken to the called party, what action do you take to connect the two parties, then drop out of the call?
- If you initiated the transfer but the new party is busy, how do you reconnect to the original caller?
- If you initiated the transfer but the new party does not answer, how do you reconnect to the original caller?
- If the system includes message waiting lamps, how do you turn them on and off?
- What is the required duration of a hook-flash?
- Does the telephone system provide any form of in-band (DTMF) or out-of-band (serial link) voice mail integration?
- What is the maximum length of an extension number (usually 3 or 4 digits)?

To verify that the information you have collected is correct, try each of the actions discussed above *from the line or lines that the VP system will be using.* Do this by connecting an industry-standard telephone to the extension port and using this telephone to perform all the functions the VP system is to do. As you perform each function (for example, answering an incoming call and transferring it to another extension), make a note of the steps that were required. For example, to transfer a call on a PBX to an extension, you may need to hook-flash, wait for dial tone, and then dial the extension number. When the extension answers, you may then have to go on-hook to complete the transfer. If the called party is busy, you may have to hook-flash again to get back to the original incoming call.

2.8 Understanding the New VP System Setup Steps

Once you connect VP system to the phone system and collect all necessary setup information, you are ready to begin customizing the system. Customizing the system involves:

- Running the PBX Setup utility (also referred to as the First Time Setup utility)
- Specifying system information on System Information screens and in the VM.CFG file
- Specifying routing box, mailbox, and other box setup information on box screens

The sections in this manual detail the procedures for completing each of these tasks.

2.9 Accessing the Windows-based Database Administrator (DBA) from a Networked PC

On Windows-based VP systems, you specify system information and box setup information using the Database Administrator application. When the Windows-based VP system PC is installed as part of a LAN, you can adjust any client PC running Windows 95, 98, 2000, or NT so you can view and modify most information in the Database Administrator from that client workstation, as well as from the VP system PC. To do so, you must configure the client PC with a directory housing four specific files. Use the procedure below to set up this directory.

To set up a client PC so it can access the Database Administrator application from the VP system PC over a network:

1. Using Explorer, from the client PC desktop, create a new folder named DBA_LINK.
2. Using a text editor, create a file named SERVER.NAM. In that file, enter the computer name assigned to the VP system PC as a single line of text. Save the file in the DBA_LINK directory on the client PC.
3. Make a copy of the file DBA.EXE from the VP system PC's \VM directory. Paste the copy into the DBA_LINK directory on the client PC.
4. Make a copy of the files LED1OFF.BMP and LED1ON.BMP from the VP system PC's \VM directory. Paste the copies into the DBA_LINK directory on the client PC.

Once this set up is complete, you can access the Database Administrator application from the client PC by simply double-clicking on the DBA.EXE file from the DBA_LINK directory. Note that you are prompted to provide a system password before you are permitted access to database screens—as is the case when you work with the Database Administrator application from the main VP system PC.

Be advised that there are some limitations you may encounter when working with the Database Administrator application by accessing it over a network. The limitations emerge when you attempt to use the Database Administrator to complete actions that involve creating, retrieving, or modifying other files stored on the VP system PC. For example, though you can create, modify, or delete a Fax box from a network PC Database Administrator access, you cannot view a fax document stored in a Fax box, because the fax document is a separate .TIF file stored on the VP system PC. You cannot listen to or modify system prompts for the same reason.

2.10 Using Microsoft Exchange Administrator to Modify Windows-based VP System Mailboxes

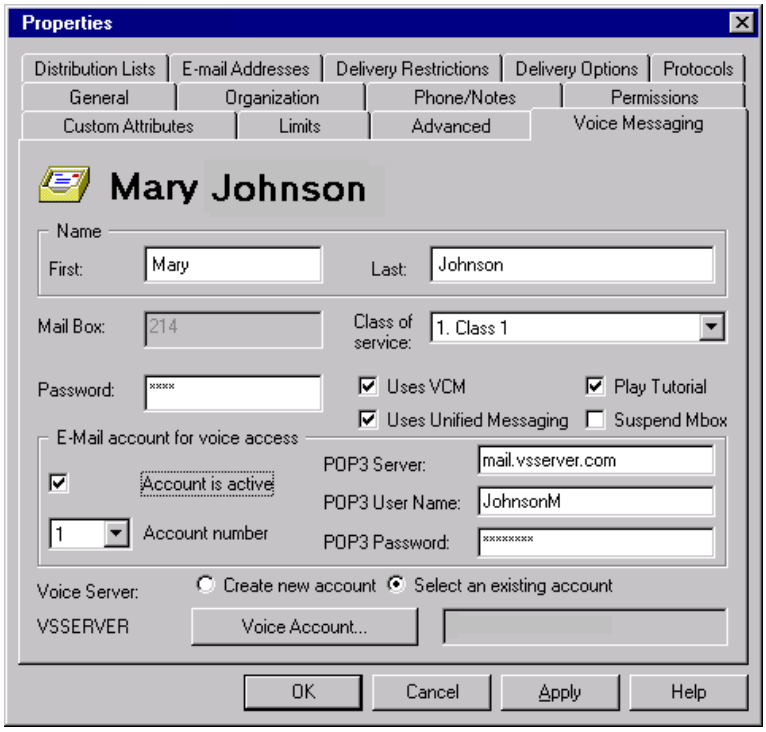
If the Windows-based VP system PC is on a network running Microsoft Exchange, you can install a utility, VMAdmin, that allows you to create and/or modify aspects of VP system mailbox setups from any LAN workstation running the Microsoft Exchange Administrator program.

Once installed, the utility adds a Voice Messaging tab to each account owner's Exchange Administrator Properties screen. From this tab, you can use options to create a new voice mailbox on the VP system PC or bring information on an existing voice mailbox into Exchange Administrator. Once a voice mailbox is set up in Exchange Administrator, modifications you make on the Voice Messaging tab are automatically updated on the subscriber's MAILBOX screens in the Database Administrator application.

You can install the VMAdmin utility on any client PC installed with Exchange Administrator. The installation program for the utility, VMINST.EXE, is located in the \Utilities\Single Point Administration directory on the VP System Installation CD-ROM.

To install the utility, use Windows Explorer or some other file management program to locate the file VMINST.EXE on the VP system CD ROM. Double-click to open the file. The INSTALL EXCHANGE ADMIN EXTENSIONS window displays. In the first field, indicate the name assigned to the Exchange Server PC, then press <Tab>. The screen is refreshed with default field entries. Review these entries and make any necessary adjustments to the field entries (no adjustments should be required unless the top portion of the screen is incomplete), then click on the Install button. Follow the prompts to complete the installation.

For additional information on working with the Voice Messaging tab from within Exchange Administrator, click on the Help button at the bottom of the window when the Voice Messaging tab is active. If you find that online help for the Voice Messaging tab is not available on a certain PC, re-run the VMINST.EXE program from that PC as detailed above, and instead of selecting the Install button, select the Set Help Path button at the bottom of the EXCHANGE ADMIN EXTENSIONS window. This action will re-establish a link with the online help.



3. RUNNING THE PBX SETUP UTILITY

Even if the VP system software is pre-installed on the system before it is shipped to you, you must run the PBX Setup utility (also referred to as the First Time Setup utility) so you can configure certain installation parameters for each specific customer's site. Use the following procedures to run the PBX Setup utility using the VP system screen interface.

(If you installed a *kit* VP system using procedures in section 21, you ran the PBX Setup utility during the kit system installation. Therefore, you can skip this section.)

The procedure you use to run the Setup utility depends on whether you are working with a DOS-based Corporate Office or a Windows-based VP system.

> **Note:** For procedures on running the PBX Setup utility through the teleparameter feature, see section 11.

To run the PBX Setup utility on DOS-based Corporate Office:

1. If the system has pre-loaded and is running on-screen, exit to a DOS prompt by pressing <Ctrl>-<Esc> then <Enter>.
2. To switch to the VM directory, type `CD\VM` then press <Enter>.
3. To invoke the Install program, type `INSTALL` then press <Enter>.
4. When the main Install menu displays, use the ↓ key to highlight FIRST TIME SETUP then press <Enter>.
5. When prompted, type `C:\VM` then press <Enter> to indicate the directory in which the VP system is installed.
6. The system warns that it may overwrite some changes to the database. To continue, press <Y>.
7. At the system prompt for the number of digits in the extension numbers, enter the appropriate number then press <Enter>. At the system prompt to confirm your entry, press <Enter>.
8. A list of telephone systems displays. Note that you can use the <PgUp> and <PgDn> keys to scroll through all available selections. Enter the number corresponding to the telephone system with which you are working, then press <Enter>. If the phone system is not on the list, select option
   0 DON'T KNOW (OR UNLISTED) then press <Enter>.
9. The system prompts you to confirm your selection. To continue, press <Y>.
10. At the system prompt regarding message waiting lights, press <Y>.
11. The system prompts you to indicate the number of telephone lines connected to the VP system. Enter the appropriate number, then press <Enter>.
12. The system prompts you for the number of digits you want to use in mailbox passwords. Indicate the number of digits subscribers are to use, then press <Enter>. (You may want to consult the system supervisor, in case he/she has a digit-length preference.)
13. The system prompts you to confirm your selection. To continue, press <Y>.

14. The system prompts you to automatically create mailboxes at this point. Though you may elect to create mailboxes now, we strongly recommend that you select No, so you can first make any necessary modifications to the prototype mailbox, which serves as a template for creating mailboxes. By properly setting up the prototype mailbox, you simplify the number of adjustments you must make to refine the mailboxes for each user. To continue without setting up mailboxes at this time, press <N>.
15. Depending on the phone system you selected, you may be prompted for additional information. Enter the appropriate responses.
16. The system prompts you to use U.S. Daylight-Savings Time. To have the system automatically adjust the clock so it accommodates Daylight-Savings Time for the next 10 years, press <Y>. If you do not want the system to automatically adjust for U.S. Daylight-Savings Time, press <N>.
17. The main Install program screen displays. To continue, select Exit then press <Enter>.
18. The Install program must re-boot the VP system to make the changes indicated. Press <Y> when the system displays the re-boot prompt. After the system reboots, the Line Status screen displays.

To run the PBX Setup utility for Windows-based systems running version 10.x and higher:

1. Shut down the VP system if it is running by stopping the KVT Voice Mail Manager service. For procedures, see section 2.5. Do not shut down the KVT Database Server or KVT FTP Server service, however, as the procedure in section 2.5 instructs. (The KVT Database Server service must run for the PBX Setup utility to function.)
2. From the Windows desktop, double-click on the PBX SETUP icon.
3. From the WELCOME screen that displays, click on the Next button.
4. On the SELECT PBX TYPE screen, highlight the phone system with which this VP system is being installed. Use the scroll bar to view all available options. Once you highlight a system, click on the Next button to continue.
5. On the EXTENSION LENGTH screen, indicate the maximum number of digits to be used in phone system extensions. To continue, click on the Next button.
6. On the PASSWORD LENGTH screen, indicate the maximum number of digits subscribers are to use in mailbox passwords. To continue, click on the Next button.
7. On the UNIFIED MESSAGING AND VCM screen, check the Use Unified Messaging box if at least one subscriber will be using Unified Messaging. If you check this box, enter in the IP ADDRESS field the IP address of the VP system PC on the network. (Note that the VP system must be assigned a static IP address. You can check the IP address by selecting Control Panel from the Start button at the bottom left of the VP system PC screen, then selecting Network tab / Protocol / TCPIP/ Properties.) Also, select the PLAY E-MAIL HEADERS checkbox if you want the system to voice the e-mail header information when e-mails are voiced to subscribers over the telephone. Header information includes that listed in the FROM, TO, and DATE e-mail form fields.

Note that when you check the Use Unified Messaging box, the Use VCM box is automatically selected and cannot be de-selected. (The Use VCM box permits functionality also used by the unified messaging feature.)

If you are not setting up the system with the unified messaging feature, but at least one subscriber will be using the VCM feature, check the Use VCM box.

To continue, click on the Next button.

1. If you did not select a Comdial phone system, skip this step and the next. If you selected a Comdial phone system, at the prompt, indicate whether you want to use LCD and Record Call features as discussed on the screen. Also indicate whether all mailboxes will use a serial link to control message waiting lamps and whether the site is using PCIU devices with the VCM feature by checking or un-checking the boxes provided. To continue, click on the Yes button.
2. If you selected a Comdial phone system, indicate the extension number associated with each voice mail port on the system. Once you specify an extension number for *every* port, click on the OK button to continue.
3. On the CONFIRM SETUP INFORMATION screen, review the selections you made. To change a selection, click on the Change button and follow the prompts. Once all selections are acceptable, click on the Finish button.
4. On the PBX SETUP COMPLETE screen, select the OK button to continue.
5. You must re-start the VP system PC to invoke the changes you made. Select the option YES, I WANT TO RESTART MY COMPUTER NOW, then click on the Finish button. The PC reboots, and the VP system is started.

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4. SETTING UP SYSTEM INFORMATION

System Information screens contain setup information that applies system-wide to all boxes set up on the system. VP systems include the following System Information screens:

- GENERAL INFORMATION screen
- LINE INFORMATION screen
- BUSINESS HOURS screen
- HOLIDAY SCHEDULE screen
- CALL TRANSFER screen / PBX INFORMATION screen
- TECHNICAL INFORMATION screen (DOS-based systems only)
- CLASS OF SERVICE screens
- OTHER CUSTOMIZATIONS screen (DOS-based systems only)
- Diagnostic menu screens (Windows-based systems only)

Two important sets of fields found on the OTHER CUSTOMIZATIONS screen in DOS-based systems are housed on a separate pull-down menu in Windows-based systems. These fields are the TRACE and CUSTOM/DEBUG fields. In Windows-based systems, these fields are found on the Diagnostics pull-down menu under the options TRACE SETUP and CUSTOM FLAGS. Information on these options is provided at the end of this section.

Before you set up routing boxes, mailboxes, or any other boxes on the system, it is best to ensure all System Information screens are completed properly.

Note:	You can access online help on any screen at any time by pressing <F1>.

4.1 Integration Defaults Set by the Setup Utility

When you run the Setup utility (see section 3), you are prompted to indicate the type of telephone system the customer is using. If you are installing the VP system on one of the phone systems listed, the Setup utility automatically sets fields on several System Information screens to the phone system's default settings. Unless you customize the phone system defaults, you probably do not need to modify these settings.

If you are using a telephone system that is not listed in the Setup utility, the utility sets fields on System Information screens to commonly used defaults. You may need to adjust these settings.

4.2 Using Technical Bulletin Information

For almost every telephone system supported by the VP system, there is a technical bulletin that details telephone-specific installation considerations and telephone-specific default values that are pre-set on System Information screens when you run the PBX Setup utility. This information is particularly useful if you are working with a phone system that is not specifically listed when you run the PBX Setup utility—primarily because it is more likely you will need to adjust settings on System Information screens.

You can obtain technical bulletins off the Web or via fax distribution. For details, contact your sales or technical support representative.

4.3 Accessing System Information Screens

Note:	Refer to section 29 for graphical illustrations of all VP system screens.

To access System Information screens through the DOS-based Corporate Office screen interface:

1. From the LINE STATUS screen, press <F10>. The Main menu displays, and you are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Customer level passwords on the GENERAL INFORMATION screen.
3. From the Main menu, select SYSTEM INFORMATION. The System Information menu displays.
4. Select the screen you want to review or modify from the System Information menu. When you have made any necessary modifications to the screen, press <F10> to save the changes. You return to the System Information menu.

To access System Information screens through the Windows-based VP system screen interface:

1. From the Windows desktop, double-click the DATABASE ADMINISTRATOR icon. You are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Administrator level passwords on the GENERAL INFORMATION screen.
3. Access the System pull-down menu.

4. Select the screen you want to review or modify from the System menu. When you have made any necessary modifications to the screen, click on the Save icon on the screen. You return to the main screen.

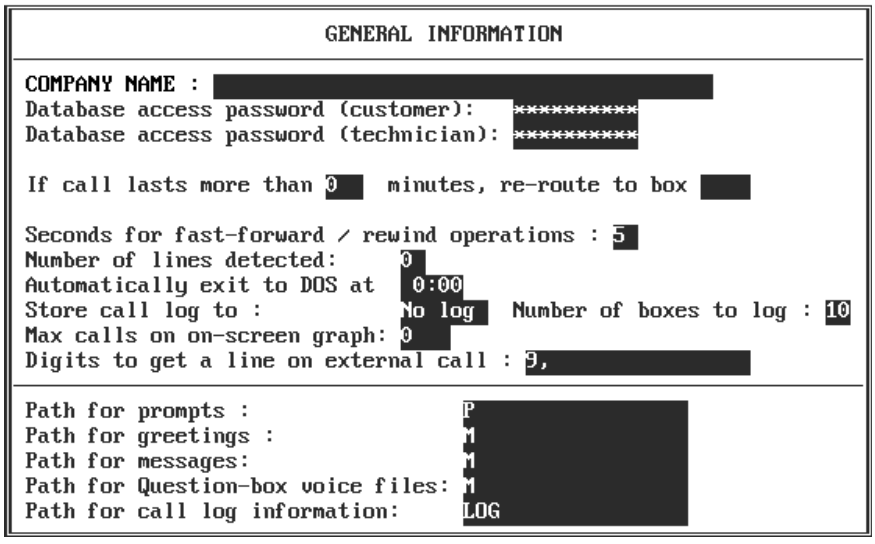
Note:	Field names and screen descriptions for both DOS-based and Windows-based systems screens are presented in this section. Each field description identifies the field name used in both types of products. Be advised that due to differences in the screen design between DOS-based and Windows-based systems, the placement of fields on several screens vary slightly. All fields on all screens *are* discussed in this section.
Note:	To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

4.4 Setting Up the General Information Screen

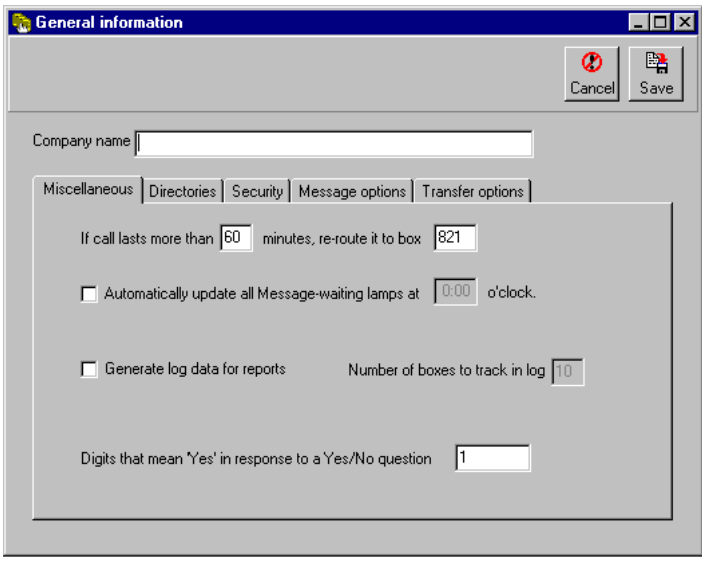
Be advised that due to differences in the screen design between DOS-based and Windows-based systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

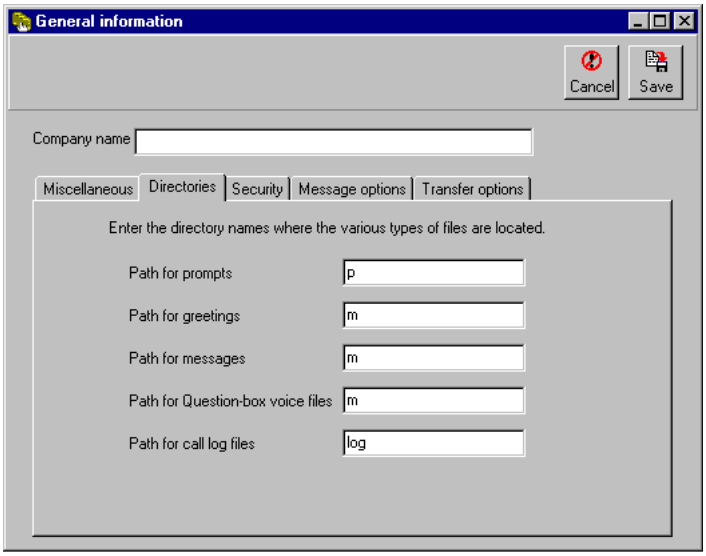
Fields used in DOS-based systems are prefaced below with **DOSVP**, and fields used in Windows-based systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name. Several field descriptions discuss setting fields to YES or NO settings. In Windows-based systems, this equates to checking or un-checking the field's checkbox, which you do by clicking on it.

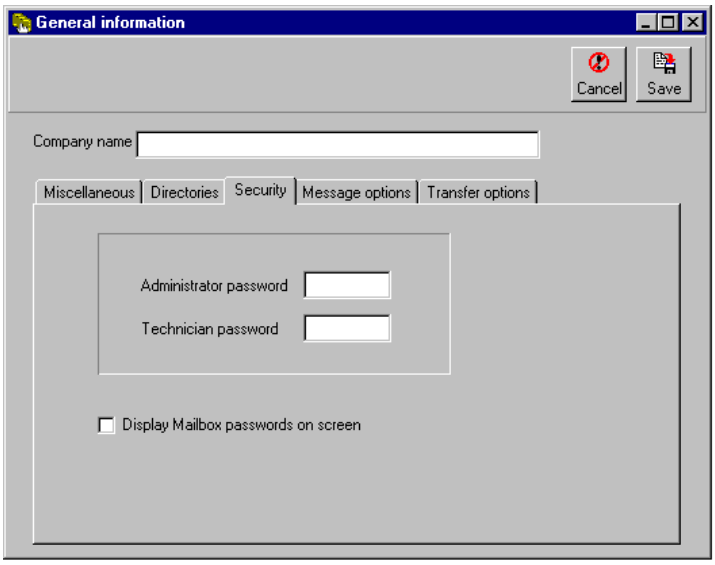
General Information Screens (DOS-based Systems)

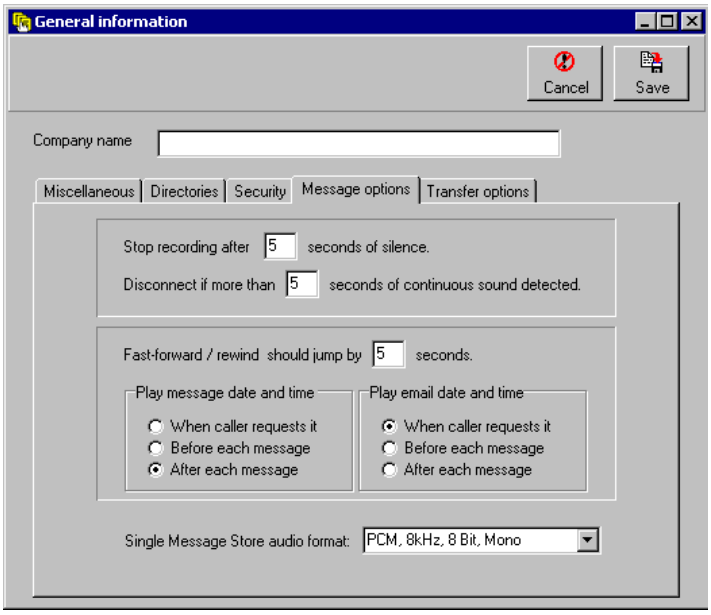

GENERAL INFORMATION
COMPANY NAME :
Database access password (customer): **********
Database access password (technician): **********
If call lasts more than 0 minutes, re-route to box
Seconds for fast-forward / rewind operations : 5
Number of lines detected: 0
Automatically exit to DOS at 0:00
Store call log to : No log Number of boxes to log : 10
Max calls on on-screen graph: 0
Digits to get a line on external call : 9,
Path for prompts : P
Path for greetings : M
Path for messages: M
Path for Question-box voice files: M
Path for call log information: LOG

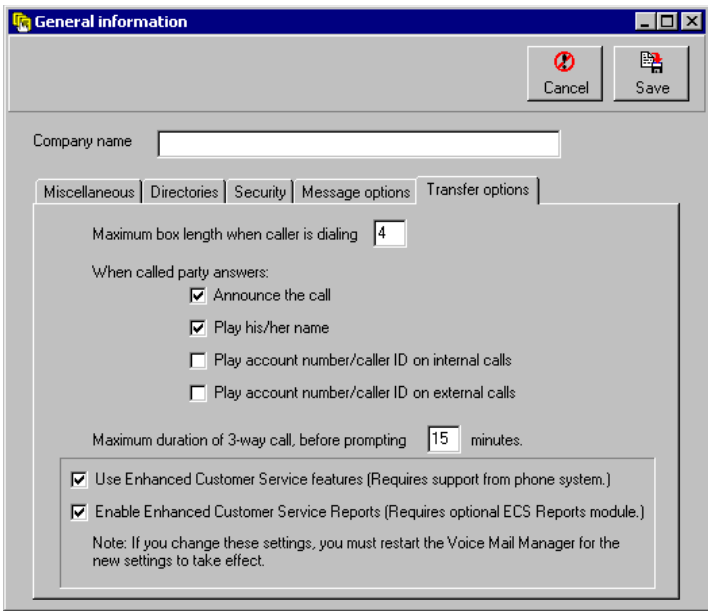
General Information Screens (Windows-based Systems)


General information
Cancel
Save
Company name
Miscellaneous
Directories
Security
Message options
Transfer options
If call lasts more than 60 minutes, re-route it to box 821
Automatically update all Message-waiting lamps at 0:00 o'clock.
Generate log data for reports
Number of boxes to track in log 10
Digits that mean 'Yes' in response to a Yes/No question 1




General information
Cancel
Save
Company name
Miscellaneous
Directories
Security
Message options
Transfer options
Administrator password
Technician password
Display Mailbox passwords on screen


General information
Cancel
Save
Company name
Miscellaneous
Directories
Security
Message options
Transfer options
Stop recording after 5 seconds of silence.
Disconnect if more than 5 seconds of continuous sound detected.
Fast-forward / rewind should jump by 5 seconds.
Play message date and time
When caller requests it
Before each message
After each message
Play email date and time
When caller requests it
Before each message
After each message
Single Message Store audio format:
PCM, 8kHz, 8 Bit, Mono


General information
Cancel
Save
Company name
Miscellaneous
Directories
Security
Message options
Transfer options
Maximum box length when caller is dialing
4
When called party answers:
Announce the call
Play his/her name
Play account number/caller ID on internal calls
Play account number/caller ID on external calls
Maximum duration of 3-way call, before prompting
15
minutes.
Use Enhanced Customer Service features (Requires support from phone system.)
Enable Enhanced Customer Service Reports (Requires optional ECS Reports module.)
Note: If you change these settings, you must restart the Voice Mail Manager for the new settings to take effect.

4.4.1 GENERAL INFORMATION SCREEN FIELD DESCRIPTIONS

DOSVP: Company Name

WINVP: Company Name

This field identifies the name of the company using the VP system. The company name appears on database listings and outgoing fax documents.

DOSVP: Database Access Password (Customer)

WINVP: Database Access Password (Technician)

WINVP:Administrator Password *(Security tab)*
Technician Password *(Security tab)*

To prevent unauthorized personnel from accessing the VP system database, choose database passwords, and enter them here. Each password can consist of up to 10 letters or digits.

There are two levels of password security, the *Customer* level (referred to as the *Administrator* level on Windows-based systems) and the *Technician* level. If you enter the Customer / Administrator password, you are provided access to everything on the VP system except the technical setup fields on several system setup screens. Though you are able to view the technical information, you cannot modify it. If you enter the Technician password, you are provided access to everything on the VP system. The default Customer / Administrator password is blank, and the default Technician password is **1234**

When you access the GENERAL INFORMATION screen, the passwords are not displayed. Instead, the fields are filled with stars. You can still access the fields and change the passwords, but you cannot see the current password. If you accessed the VP system using the Technician password, you can access and change both password fields. If you accessed the VP system using the Customer / Administrator password, you can access and change only that password field.

DOSVP:(*See Other Customizations screen for comparable field)*
WINVP:Display Mailbox Passwords on Screen *(Miscellaneous tab)*

When the VP system displays the MAILBOX screen on the PC screen, there is a field PASSWORD that contains the mailbox owner's password. If you do not want the password to display on the screen, choose NO here. The PASSWORD field will be filled with stars. You can still access the PASSWORD field, and change the password if required, but you cannot view the current password.

DOSVP:If Call Lasts More Than x Minutes, Go to Box
WINVP:If Call Lasts More Than x Minutes, Go to Box *(Miscellaneous tab)*

This field allows you to limit the amount of time that a call remains in the VP system. For standard voice mail / automated attendant operation, caller activity is usually limited to transferring to an extension or leaving message in a mailbox (you can limit the amount of time for a message in the class of service assigned to the mailbox). There may be some cases, however, when you want to prevent callers from spending an unlimited amount of time on a single call. Some examples are:

- *Call queuing*—If you are allowing the VP system to queue calls to busy stations, you may want to limit the maximum amount of time that a caller can hold. In normal operation, the system returns to the calling party after a pre-determined number of tries to a busy extension and asks if he/she wants to remain on hold. If you do not set a time limit here, the caller can request to remain on hold for an unlimited amount of time.
- *Talking classifieds*—If the system includes the optional Talking Classifieds module, you may want to limit the time a caller may "browse" through the listings.

When you enter a time in the MINUTES field, the VP system keeps track of each incoming call. When the maximum time limit has been reached, the VP system completes the current operation (such as playing a prompt or greeting, recording a message, etc.), routes the caller to the box specified in the re-route to box field. This is typically a Routing box with a greeting such as:

"I'm sorry, you have exceeded the maximum allowed time for this call. Please call again at a later time."

You can set up this box to disconnect the call after playing the greeting, or you can have it transfer the call to a live operator.

Note:	When the MINUTES field is set to zero (0), this feature is disabled and there is no time limit in effect. Callers may stay connected to the VP system as long they stay on the line.

DOSVP:*(See Technical Information screen for comparable field)*
WINVP:Automatically Update All MWI Lamps at *(Miscellaneous tab)*

Some telephone system automatically cancel all message waiting lamps at a pre-set time (such as Mid-night). Also, many telephone systems do not restore the state of message waiting lamps following a power failure. You may program the VP system to automatically re-send the message waiting lamp ON sequence for every mailbox with new messages, and the OFF sequence for every mailbox with no new messages, once each day at this time. The following limitations must be considered:

- The VP system may need to make dozens or even hundreds of calls to update all message waiting lamps on the system. The time you enter here should be at the time of lowest activity on the system.
- On DOS-based systems, the time set here should not conflict with the daily EXIT TO DOS TIME (see below).

Some telephone systems do not allow unnecessary added MESSAGE WAITING ON indications to be set.

If you are not experiencing problems with message waiting lamps, leave this field blank. Intermittent performance of message waiting lamps may be caused by problems that are not related to the use of this feature.

Note:	If you have only an occasional problem with message waiting lamps (such as a power failure), you can invoke the message waiting update manually. From the main screen, press <Ctrl-F1> simultaneously. The update process begins, and you see an advisory message on the screen that the update is running. To cancel the update before it completes, press <Ctrl-F2>.

DOSVP:Number of Boxes to Log
WINVP:Number of Boxes to Track in Log *(Miscellaneous tab)*

In the call logging record for each call, the VP system stores an audit trail of all the boxes the caller accessed during the call. The default is for the VP system to store only the first 9 boxes, but you can set this number to any value between 1 and 99. The VP system includes this number of boxes in every call record in the log file. If the call used fewer boxes than the number you specify here, the VP system includes a blank box number in the log file for each missing box. If the log information is being sent to a file, each box number is enclosed in quotation marks, including the blank boxes.

DOSVP:*(See Call Transfer screen for comparable field)*
WINVP:Digits that Mean YES in Response to a Yes/No Question *(Miscellaneous tab)*

There are several occasions when the VP system asks the caller for confirmation. For example, when the caller enters his/her pager callback number, the VP system repeats it and says, *"If this is correct, press 1.*" All digits you list in this field are considered "Yes" answers. Any other key is treated as "No." Be advised that entries in this field affect all boxes set up on the system, not just a particular box.

If you choose to use another number instead of 1 to mean "Yes," you must re-record the prompts that specify the number '1' and change them to ask for the new number (see section 15). This includes prompts voiced in the following situations:

- Sending a message from within an open mailbox. The VP system says the recipient's name, and then voices the prompt, *"If this is correct, press 1."*
- During a message notification call. The VP system waits for the called party to answer, then says, "*Message for [name]. Press 1 if you would like to hear your messages."*
- During a three-way call. To ensure the call is still active, the VP system periodically comes on the line and says, "*Excuse me, please press 1 if you wish to continue your call."*

DOSVP:*(See Other Customizations screen for comparable field)*
WINVP:Display Mail-Box Passwords on Screen *(Miscellaneous tab)*

When the VP system displays the MAILBOX screen on the PC screen, there is a field PASSWORD that contains the mailbox owner's password. If you do not want the password to display on the screen, choose NO here. The PASSWORD field will be filled with stars. You can still access the PASSWORD field, and change the password if required, but you cannot view the current password.

DOSVP:Number of Lines Detected
WINVP:*(No such field)*

This field cannot be change from the keyboard. The VP system examines the hardware in the computer, counts the number of voice processing boards installed, and counts the number of lines each board can accommodate. It then displays the maximum number of lines here.

DOSVP:Automatically Exit to DOS at
WINVP:*(No such field)*

DOS-based systems need to perform various maintenance tasks on a regular basis, such as de-fragmenting the PC's hard disk. To perform these tasks, it needs to exit to DOS. Use this field to specify a time that the VP system can automatically exit to DOS each day. It is important to choose a time of the day when the system is least busy (for example, 2:00 AM) and enter that time in this field to make the feature active (if you enter 00:00 in this field, this feature is disabled). The automatic exit to DOS feature is important for two reasons:

- When the VP system exits to DOS and re-loads, an AUDIT DATABASE program runs and checks the integrity of the voice prompts and system boxes.
- Every Wednesday, a batch file is programmed to run a hard disk drive defragmenting program. This keeps the VP system running at its peak operating performance. The batch program may take up to 30 minutes or more to run.

When the program exits to DOS to perform maintenance functions, you can schedule it to perform other tasks, such as backups. Program these other tasks to be called from the DISKM.BAT file.

DOSVP:Store Call Log to
WINVP:*(No such field)*

When you move the cursor to this field, a menu displays, offering options for the call logging feature. You can turn call logging off or send the output to a printer or to a file.

If you select to send logs to the printer, verify:

- The printer is attached to LPT1 on the PC.

- The printer is turned on and is on-line.
- The printer is set to perform a CARRIAGE-RETURN and LINE-FEED when it receives a line feed character (such as an automatic carriage-return). Consult the printer documentation for information on adjusting these settings.

If you choose to store call logs to a file, the VP system creates a file called VOICMAIL.LOG in the \VM\LOG directory. All log information is written to that file. At midnight each night, the contents of VOICMAIL.LOG are transferred to another file in the subdirectory \LOG for long-term storage. The name of the long-term storage file is based on the month and day. On February 15, for example, the daily log file is stored as VOICEMAIL.LOG. At midnight, the contents of VOICEMAIL.LOG are copied to the file 0215.LOG, and the file VOICEMAIL.LOG is cleared to record the log of calls on February 16. At midnight on February 16, the contents of VOICEMAIL.LOG are copied to the file 0216.LOG, and VOICEMAIL.LOG is cleared to record the log of calls on February 17.

Up to one year's worth of information can be stored. After that, the VP system begins over-writing the previous year's log files.

DOSVP: *(No such field)*
WINVP:Generate Log Data for Reports

Select this option to allow the VP system to tabulate data on all incoming and outgoing calls in a log file. This data can then be used to generate several system reports, viewable using the Reports Generation Package (see section 7.10).

Up to one year's worth of information can be stored. After that, the VP system begins over-writing the previous year's log files.All log information is written to the file VOICMAIL.LOG in the \VM\LOG directory. At midnight each night, the contents of VOICMAIL.LOG are transferred to another file in the subdirectory \LOG for long-term storage. The name of the long-term storage file is based on the month and day. On February 15, for example, the daily log file is stored as VOICEMAIL.LOG. At midnight, the contents of VOICEMAIL.LOG are copied to the file 0215.LOG, and the file VOICEMAIL.LOG is cleared to record the log of calls on February 16. At midnight on February 16, the contents of VOICEMAIL.LOG are copied to the file 0216.LOG, and VOICEMAIL.LOG is cleared to record the log of calls on February 17.

DOSVP:Max Calls on On-Screen Graph
WINVP:*(No such field)*

One of the on-line displays is a set of graphs showing the number of incoming calls received per hour for the current and previous day. You can specify the maximum value for the vertical scale on the graph. If you set this value to 0, the VP system automatically chooses the best scale, according to the number of calls received.

DOSVP:*(See Technical Information screen for comparable field)*
WINVP:Stop Recording After X Seconds of Silence *(Message Options tab)*

When the VP system is recording a message, it determines that the caller has finished speaking if he/she remains silent for a specific interval. Use this parameter to specify how many seconds of silence the VP system should detect before ending recording. If you enter 0 in this field, silence detection is disabled.

Note:	If the telephone system does not provide positive disconnect (DTMF tones or a break in loop current), you may experience silent messages in mailboxes when a caller hangs up before leaving a message. You may use a combination of this parameter and the parameter MINIMUM MESSAGE in the configuration file VM.CFG to minimize these "blank" messages. Use caution when setting the NUMBER OF SECONDS OF SILENCE TO END RECORDING parameter. If this time is set too short, you may stop recording caller's messages when they are simply pausing for a moment.

See section 12 for information on the MINIMUM MESSAGE parameter.

DOSVP:*(See Technical Information screen for comparable field)*
WINVP:Disconnect if More than X Seconds of Continuous Sound Detected *(Message Options tab)*

While the VP system is recording a message, it is monitoring the line for dial tone (continuous non-silence). If dial tone is detected, the VP system assumes the caller has hung up, and stops recording. This field lets you specify how many seconds of continuous non-silence needs to be detected before the system assumes it is dial tone.

Note:	If you set this number too low, a caller who pauses and says *"aaaahhhh"* could trigger the dial tone detection. If you set the number too high, 15 seconds, for example, the C.O. or PBX might remove the dial tone before it has been on the line long enough to be detected.

DOSVP:Seconds for Fast-Forward/ Rewind Operations
WINVP:Fast-Forward/Rewind Should Jump by X Seconds *(Message Options tab)*

When a mailbox owner is listening to his/her messages, he/she can use the *fast-forward* and *rewind* functions. *Fast-forward* forwards the message by a pre-defined number of seconds. *Rewind* reverses the message that number of seconds. Use this field to specify the number of seconds for both operations.

DOSVP:*(See Other Customizations screen for comparable field)*
WINVP:Play Message Time and Date *(Message Options tab)*

When a mailbox owner is listening to his/her messages, one of the options is to press 5 to hear the time and date that the message was received. Use this field to control the play of the time and date of each message. The choices are:

- WHEN CALLER ASKS—The mailbox owner must press 5 to hear time and date
- BEFORE EACH MESSAGE—The time and date is played automatically before each message
- AFTER EACH MESSAGE—The time and date is played automatically after each message (this is the default)

DOSVP:*(No such field)*
WINVP:Single Message Store Audio Format *(Message Options tab)*

If any subscribers on the system are set up to use the Single Message Store TUI Browser unified messaging feature in their mailboxes, their voice mail messages are stored on an e-mail server. This field indicates the format in which those messages are stored. The format GSM 6.10 is a compressed file format that consumes approximately 75% less storage space than messages stored in the standard PC M format. The compressed format also utilizes less network bandwidth than a standard PCM file, improving overall performance, and therefore is the recommended format.

DOSVP:Digits to Get a Line on External Call
WINVP:*(See PBX Information screen for comparable field)*

If the VP system is working behind a key system or a PBX, enter the sequence of digits it should dial to get an outside (C.O.) line when calling an external number. This number is typically a **9** followed by a pause (**9,**).

Note:	The digits in this field are not involved when the VP system is making an external call transfer. They are only used when it places an outgoing external call (for pager notification or message delivery, for example). See section 7.3 for information on external transfers.

DOSVP:*(See Other Customizations screen for comparable field)*
WINVP:Maximum Box Length When Caller is Dialing *(Transfer Options tab)*

Box numbers in the VP system may be 2, 3, or 4 digits long (for example, you may have a mailbox 10, a mailbox 100, and a Routing box 1000). To speed up call processing, you may use this parameter to define the maximum box length that a caller might dial. Entering a number less than 4 does *not* mean you cannot have any 4-digit boxes in your system, just that any 4-digit boxes can not be dialed directly by a caller.

For example, if the telephone system uses only 3-digit extensions, you will probably have corresponding 3-digit mailboxes. In this case, enter **3** for MAXIMUM BOX LENGTH. When a caller dials a 3-digit mailbox number, the VP system processes the call immediately, not waiting for a fourth digit.

In this example, you can still use 4-digit box numbers on the system, especially for other box types, such as Routing boxes, provided that these boxes are accessed in a way other than the caller dialing the box number. For example, you may use 4-digit Routing boxes as the initial boxes indicated on the LINE INFORMATION screen, in the Routing box DESTINATION FOR DIGIT fields, in any system GO TO BOX field, etc.

Note:	If the system has Routing box numbers that are longer than the MAXIMUM BOX LENGTH parameter, the greeting can only be recorded by using the computer keyboard. Owners of Routing boxes are not able to remotely record or change a greeting because when the VP system prompts the box owner to enter the box number of the greeting he/she wants to change, the owner is not be able to dial more than the number of digits defined in MAXIMUM BOX LENGTH.

DOSVP:*(See Other Customizations screen for comparable field)*
WINVP:When Called party Answers, Announce the Call *(Transfer Options tab)*

This parameter affects only the mailboxes using transfer type WAIT FOR ANSWER.

When using the WAIT FOR ANSWERtransfer type, the VP system does not connect the calling and called parties until it confirms that the called party has answered. This is done two ways:

- Voice is detected on the line
- A break in the cadence of the ringback tone is detected (see section 13)

This process may take 1 to 2 seconds from the time that the called party goes offhook to answer an incoming call. Under normal operating conditions, the VP system informs the called party that it has detected answer by playing the system prompt:

"I have a call for you."

Setting this parameter to NO prevents the prompt from playing. A short tone plays in its place (system prompt 166).

Note:	Users should be made aware that when they first go off hook and answer an incoming call, the calling party does not hear their initial answer (since the VP system does not connect the call until it detects the answer).

DOSVP:*(See Other Customizations screen for comparable field)*
WINVP:When Called Party Answers, Play His/Her Name *(Transfer options tab)*

This field affects only mailboxes using the WAIT FOR ANSWER or SCREEN transfer type. If this field is set to YES, when the called party answers, the VP system announces the call. The standard format is one of the following:

"I have a call for you, [name]."

"Call from [calling party's name] for [name]." (if the option to get the caller's name is active)

This prompt is useful if an extension receives calls from more that one mailbox and you want it to be answered with the correct name of the called party. For example, several mailbox owners could change their call transfer service to send their calls to a central answering point (see section 5.1). The person receiving these calls can now hear who these calls are for and answer with a personalized greeting such as, *"Mr. Smith's office," "Mr. Jones' office,"* etc.

Setting this field to NO causes the VP system to omit the called party's name and simply announce the call. The format is one of the following:

"I have a call for you."

"Call from [calling party's name]." (if the option to get the caller's name is active on the Mailbox setup screen)

DOSVP:*No such field*
WINVP:When Called Party Answers, Play Account Number/Caller ID on Internal Calls *(Transfer options tab)*

This field affects only mailboxes using the WAIT FOR ANSWER or SCREEN transfer type to transfer calls to internal extension numbers. If this field is set to YES, when the called party answers, the VP system announces the account number associated with the call (for details, see information on Account Number boxes in section 5) or caller ID information if both no account number has been collected and caller ID information was provided from the phone system. This information is voiced after the Announce the Call and Play His/Her Name option information is voiced, if those options are active on the Transfer options tab.

DOSVP:*No such field*
WINVP:When Called Party Answers, Play Account Number/Caller ID on External Calls *(Transfer options tab)*

This field affects only mailboxes using the WAIT FOR ANSWER or SCREEN transfer type to transfer calls to external numbers. If this field is set to YES, when the called party answers, the VP system announces the account number associated with the call (for details, see information on Account Number boxes in section 5) or caller ID information if both no account number has been collected and caller ID information was provided from the phone system. This information is voiced after the Announce the Call and Play His/Her Name option information is voiced, if those options are active on the Transfer options tab.

DOSVP:*(See Call Transfer screen for comparable field)*
WINVP:Max Duration of 3-Way Call, Before Prompting *(Transfer Options tab)*

Since the VP system has to stay on the line for the entire duration of a three-way call, it has to know when both parties have finished their conversation, so it can hang up and release the line. To guard against the event that the end of the conversation is not detected, the Interchange will come on the line after the amount of time you specify here, and prompt the parties to confirm that at least one of them is still on the call. It does this by playing the prompt, *"Excuse me, press 1 if you wish to continue your call."* If either party presses 1, the timer resets and the call can proceed. If no digit is dialed, the Interchange disconnects the call.

DOSVP:*No such field*
WINVP:Use Enhanced Customer Service Features *(Transfer Options tab)*

This feature is available on Interchange versions 10.1x and higher. If the phone system supports Enhanced Customer Service integration, check this box to activate these features. Enhanced Customer Service integration:

- Allows you to specify on CUSTOMER SERVICE BOX screens that call hunting is to start from the longest idle extension
- Allows the Interchange to identify non-idle agent extensions before attempting a call transfer (speeding call processing)
- Provides LCD display of queue statistics
- Allows agents to log into and out of a Customer Service group via the LCD controls on their phone

For additional information on Enhanced Customer Service integration and the phone systems that support it, contact a Interchange sales representative.

DOSVP:*No such field*
WINVP:Enable Enhanced Customer Service Reports *(Transfer Options tab)*

If the phone system supports Enhanced Customer Service integration, and you have purchased the Reports module, check this box to have the system generate data for Customer Service Reports. Do not check this box if you have not purchase the Reports module, as report data will be pooled, but will not be able to be viewed or used in any capacity.

For additional information on Enhanced Customer Service integration and the phone systems that support it, contact a Interchange sales representative.

Defining the Paths for the Interchange Files

When Interchange software is installed, the system automatically stores the files in the directory \VM and several sub-directories under \VM. You may move some of the file types to other directories (if required by your application) by setting a new path in the following fields. Note that changing the path here does *not* move any of the existing files stored in the current path—you must manually move the files.

If you choose to place files in a directory other than the default shown, you must indicate the complete path here. For information on indicating paths, consult documentation for the operating system.

DOSVP:Path for Prompts
WINVP:Path for Prompts *(Directories tab)*

When the Interchange is about to play a system prompt *(*such as, *"Please hold for…" or, "That extension is currently unavailable…"*), it looks for the speech file that contains that prompt. The system prompts are stored by default in the directory \VM\P. However, you can store them elsewhere if you use this field to tell the Interchange where to find them.

DOSVP:Path for Greetings
WINVP:Path for Greetings *(Directories tab)*

When the Interchange is about to play a box greeting (*"For Sales, press 1, for Service, press 2,"* or, *"Hi, this is Mary. Please leave me a message after the tone..."*), it looks for the speech file that contains that greeting. The box greetings are stored by default in the directory \VM\M. However, you can store the greetings elsewhere if you use this field to tell the Interchange where to find them.

DOSVP:Path for Messages
WINVP:Path for Messages *(Directories tab)*

When the Interchange is about to play a mailbox message to the owner of the mailbox, it looks for the speech file that contains that message. The mailbox messages are stored by default in the directory \VM\M. However, you can store them elsewhere if you use this field to tell the Interchange where to find them.

DOSVP:Path for Question Box Voice Files
WINVP:Path for Question Box Voice Files *(Directories tab)*

Question box questions and answers are stored by default in the directory \VM\M. However, you can use this field to tell the Interchange to store them in another directory. Changing the path here for the questions and answers does not affect where Question box greetings are stored, which is the same path as that used for all other system greetings.

DOSVP:Path for Call Log Information
WINVP:Path for Call Log Information *(Directories tab)*

If you selected FILE for the VM.CFG parameter STORE CALL LOG TO:, the Interchange normally records this information in files stored in the sub-directory VM\LOG. You may use this field to tell the Interchange to use another directory. Note that log files are automatically archived for one year, so you must have sufficient disk space available or you must periodically delete the files. See section 7.1 for more information on the call log.

For additional information on files, see section 16.

4.5 Setting Up the Line Information Screen

The LINE INFORMATION screen is divided into columns, and each row contains the information for one of the Interchange's ports. If the Interchange has more lines than are displayed on the screen, you can display the additional lines by pressing <F6> or the previous 8 lines by pressing the <F5>. (Windows-based Interchange users can also scroll to see all line information.)

Be advised that due to differences in the screen design between DOS-based and Windows-based Interchanges, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

Fields used in DOS-based Interchanges are prefaced below with **DOSVP**, and fields used in Windows-based Interchanges are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

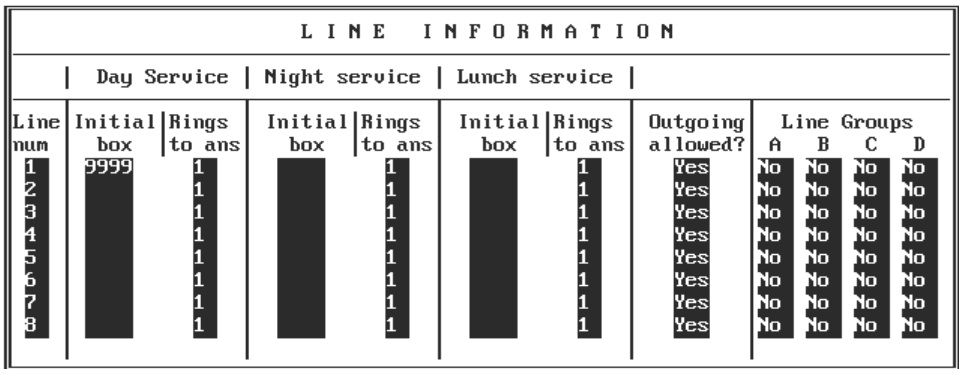
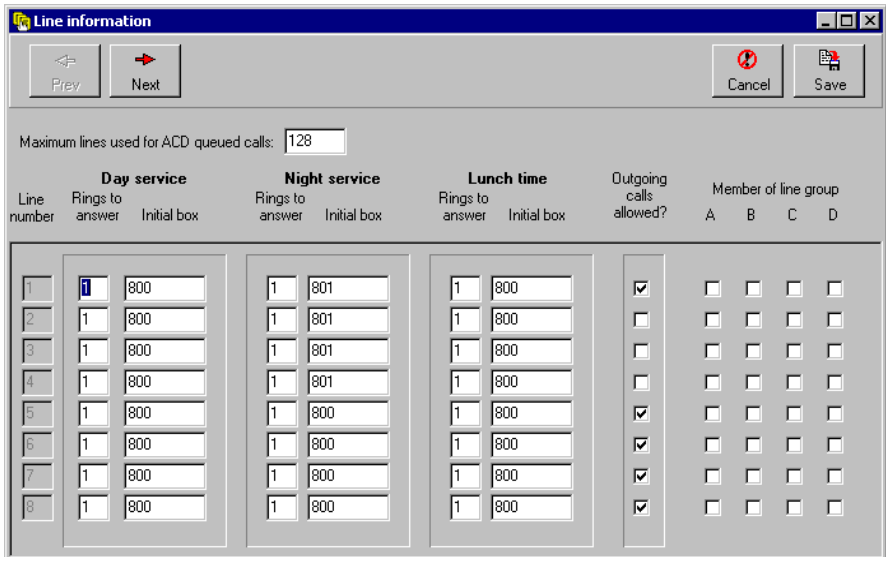

LINE INFORMATION
Day Service
Night service
Lunch service
Line num
Initial box
Rings to ans
Initial box
Rings to ans
Initial box
Rings to ans
Outgoing allowed?
Line Groups
A B C D
1 9999 1 Yes No No No No
2 1 1 Yes No No No No
3 1 1 Yes No No No No
4 1 1 Yes No No No No
5 1 1 Yes No No No No
6 1 1 Yes No No No No
7 1 1 Yes No No No No
8 1 1 Yes No No No No

Figure 1-2 Line Information Screens (DOS-based Systems)

Line Information Screen (Windows-based Systems)



4.5.1 LINE INFORMATION SCREEN FIELD DESCRIPTIONS

DOSVP:*(No such field)*
WINVP:Maximum Number of Lines Used for ACD Queued Calls

This field limits the number of ports that can be used for Customer Service boxes on the system. Note that this limits the total number of ports available for all Customer Service boxes, not the number of ports available for each Customer Service box. This allows the system to use a specified number of ports for customer service while using all other available ports for voicemail, auto attendant applications, and other system applications. As callers call into Customer Service boxes, the system counts how many ports are being used for customer service. Once the maximum number of ports are being used for customer service, the system will not allow any new calls to access the Customer Service

boxes. The default value for this field is the total number of ports available on the system. You can specify how the system should handle calls when there are no ports available for Customer Service queued calls on the QUEUING OPTIONS tab of the CUSTOMER SERVICE BOX screen for each Customer Service box.

DOSVP:Initial Box (Day Service, Night Service, Lunch Service)
WINVP:Initial Box (Day Service, Night Service, Lunch Service)

When a call is first answered, the system checks the date and time to see if the business is open (in Day Service mode). To make this determination, it consults the BUSINESS HOURS screen.

If the system is in Day Service mode, it reads the box number from this field, and routes the call to that box. This box is typically a Routing box that plays a "welcome" greeting and offers various options to the caller. The same process is applied when the system is in the Lunch Service mode or Night Service mode.

DOSVP:Rings to Answer
WINVP:Rings to Answer

The system answers incoming calls after the number of rings specified in this field. You can set this parameter for Day, Night, and Lunch Service modes.

If the telephone system rings all the systems ports simultaneously for each incoming call, set the value in this field to 99. This tells the system to answer on one port, then pause to see if the other ports stop ringing. If they do not, the system answers on another port (as there must have been at least two calls ringing in), and pauses again, etc.

> **Note:** If you have problems with the operation of this feature, adjust the pooled ring time (see section 12).

DOSVP:Outgoing Calls Allowed
WINVP:Outgoing Calls Allowed

If this field is set to NO for a particular line, the system does not use that line when it is making outgoing calls, to call a paging service, to perform message notification, and to set or clear message-waiting lamps, for example.

> **Note:** The settings in this field are ignored for any call that is made within a specific line group you have set up.

DOSVP:Line Groups
WINVP:Line Groups

Use these fields to specify which lines belong to which line group. Each line group can contain zero, one, or several lines, and each line can belong to zero, one, or several line groups. For more information on line groups, see section 7.16

4.6 Setting Up the Business Hours Screen

Use the BUSINESS HOURS screen to define the Day Service mode period and Lunch Service mode period. By default, any period not defined as part of Day Service or Lunch Service is considered part of Night Service mode.

The system automatically switches between Day Service mode, Night Service mode, and Lunch Service mode based on the times you enter in these fields.

> **Note**: A system supervisor has the ability to call into the system and override these times, forcing the system into Day Service or Night Service at any time.

Before programming the system's BUSINESS HOURS, see section 7.7 for a complete discussion of Day Service, Night Service, and Lunch Service modes.

Be advised that due to differences in the screen design between DOS-based and Windows-based systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

Fields used in DOS-based systems are prefaced below with **DOSVP**, and fields used in Windows-based systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

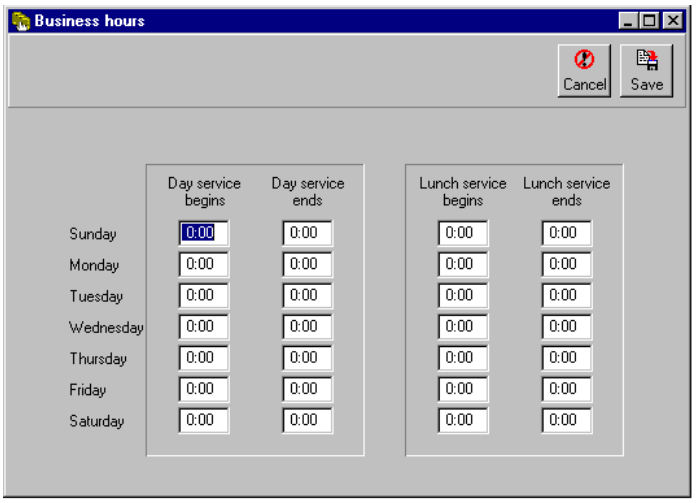
Business Hours Screens (DOS-based Systems)

```
                    B U S I N E S S   H O U R S

          Day          Day          Lunch        Lunch
       service      service      service      service
        begins       ends         begins       ends
SUN:   _____        _____        _____        _____
Mon:   _____        _____        _____        _____
Tue:   _____        _____        _____        _____
Wed:   _____        _____        _____        _____
Thu:   _____        _____        _____        _____
Fri:   _____        _____        _____        _____
Sat:   _____        _____        _____        _____

Change "Good afternoon" to "Good evening" at: _____
```

Business Hours Screens (Windows-based Systems)



4.6.1 BUSINESS HOURS SCREEN FIELD DESCRIPTIONS

For each day of the week, enter the opening and closing times for the business. If the business is closed all day, enter **00:00** in both the DAY SERVICE BEGINS and DAY SERVICE ENDS fields. This places the system in the Night Service mode for that entire day.

If the business is open 24 hours on a particular day, enter **00:00** for the DAY SERVICE BEGINS time and **24:00** for the DAY SERVICE ENDS time.

Note:	All times must be entered in 24-hour format—for example, enter 8:00 PM as 20:00).

The Lunch Service mode may be used for a variety of purposes. See section 7.7.

DOSVP:Change “Good Afternoon” to “Good Evening” at
WINVP:Change “Good Afternoon” to “Good Evening” at

If you have recorded system prompts 171, 172, and 173, the initial greeting (as programmed in the LINE INFORMATION screen) is automatically preceded with the appropriate prompt. Prompt 171, *“Good morning…”* is voiced from midnight until noon. Prompt 172, *“Good afternoon…”* is voiced from Noon until the time set here. At this time prompt 173, *“Good evening…”* is voiced until midnight.

If you have not recorded prompts 171, 172, and 173, you can ignore this field. These prompts are not pre-recorded, since they should be recorded in the same voice as the initial greetings for best quality and continuity.

4.7 Setting Up the Holiday Schedule Screen

Besides having the system answer calls differently at different times of the day, you can have the system answer calls in a special way during various holidays. For example, on New Year's day, the company may be working with a smaller staff, so they may want the system to greet customers with:

"The XYZ Company wishes all its customers a Happy New Year. Our service personnel are not available today, but will be back as usual tomorrow. For Sales, press 1, or press 0 to speak to an operator."

You may pre-define up to 20 holiday dates. For each holiday, you can specify a different greeting or a different call routing scheme. During the holiday, the system uses the greeting and call routing scheme you have defined.

The following programming example shows how to set up a New Year's holiday greeting to play on January 1.

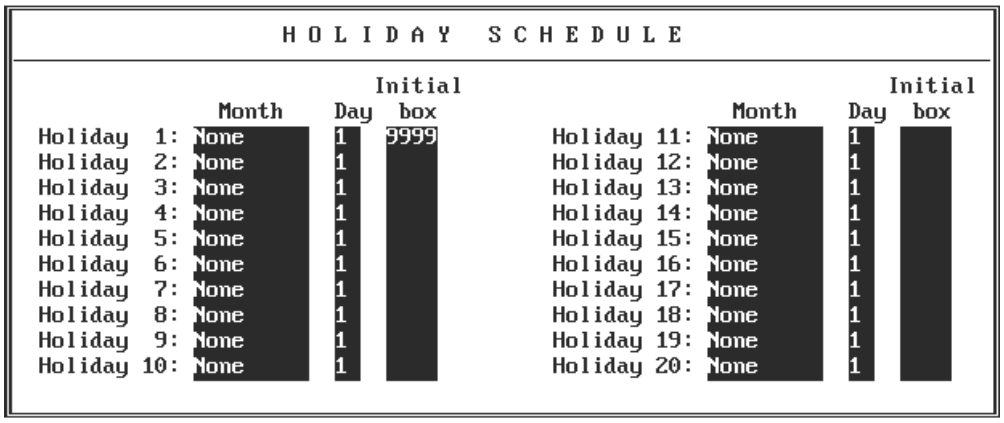
Access the HOLIDAY SCHEDULE screen and select JANUARY as the month, then enter **1** to indicate the first day of the month. In the field INITIAL BOX, enter a spare box number (which will be set up later in this example). In this example, box number 8500 is used.

The system is now advised of the New Year's holiday. Each time a call arrives on January 1, the system routes the call to box 8500, ignoring all service periods assigned on the LINE INFORMATION screen.

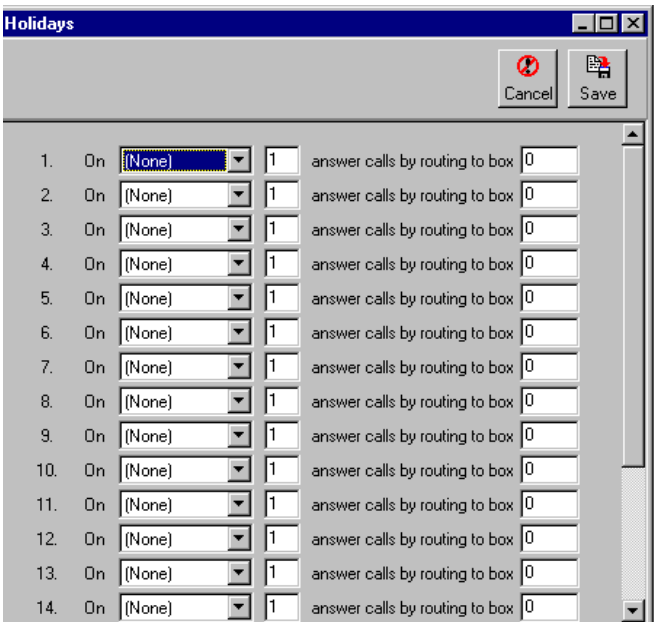
Note:	Holiday greetings are in effect for the entire 24-hour period of the calendar day.

To complete this example, Routing box 8500 must be created. You add Routing boxes by accessing the ROUTING BOX screen (see section 5.7). Press <F2> to add a Routing box and type 8500 in the window that displays. Once you create a Routing box, you can record a greeting in it (in this example, a New Year's specific holiday greeting) and set up the various routing options as described in section 5.7.

Holiday Schedule Screen (DOS-based Systems)



Holiday Schedule Screen (Windows-based Systems)


Holidays
Cancel
Save
1. On (None) 1 answer calls by routing to box 0
2. On (None) 1 answer calls by routing to box 0
3. On (None) 1 answer calls by routing to box 0
4. On (None) 1 answer calls by routing to box 0
5. On (None) 1 answer calls by routing to box 0
6. On (None) 1 answer calls by routing to box 0
7. On (None) 1 answer calls by routing to box 0
8. On (None) 1 answer calls by routing to box 0
9. On (None) 1 answer calls by routing to box 0
10. On (None) 1 answer calls by routing to box 0
11. On (None) 1 answer calls by routing to box 0
12. On (None) 1 answer calls by routing to box 0
13. On (None) 1 answer calls by routing to box 0
14. On (None) 1 answer calls by routing to box 0

4.8 Setting up the Call Transfer/PBX Information Screen.

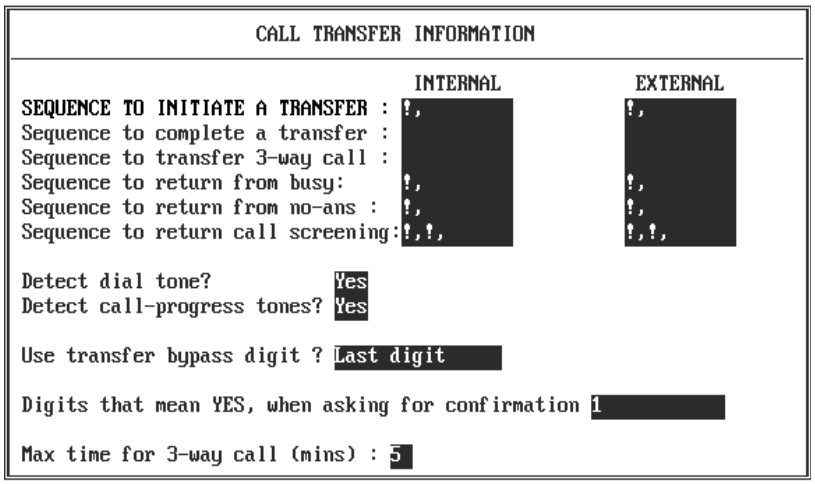
On the CALL TRANSFER screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems) you describe to the system how to transfer calls using the telephone system. Many of the entries on this screen are preset when you run the Setup utility and specify a telephone system. If you were able to select the specific phone system with which you are working when you ran the Setup utility, you probably do not need to adjust default entries made on these screens.

> **Note**: In the following field descriptions, there are references to INTERNAL and EXTERNAL call transfers. The system determines that a transfer is INTERNAL if there are 6 or fewer digits in the telephone number it is to dial. If there are more than 6 digits in the number, the system assumes the transfer is EXTERNAL. You can change this default from 6 to any other number by entering the appropriate command in the configuration file VM.CFG. See section 12.

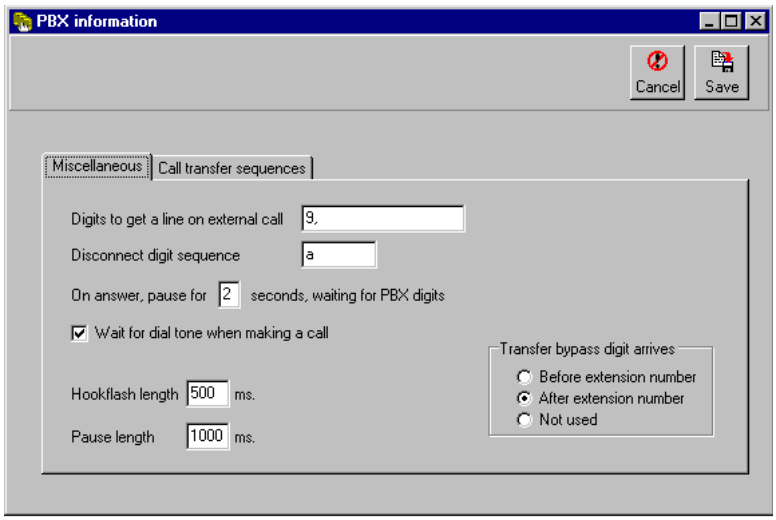
Be advised that due to differences in the screen design between DOS-based and Windows-based systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

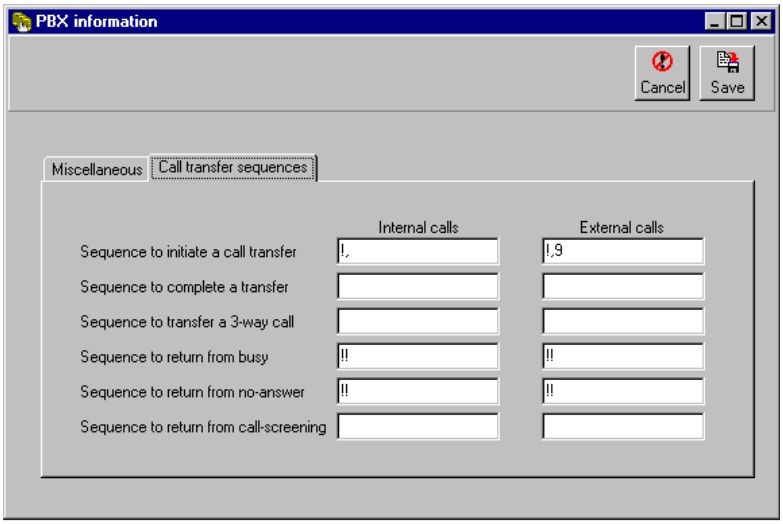
Fields used in DOS-based systems are prefaced below with **DOSVP**, and fields used in Windows-based systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

Call Transfer Screen (DOS-based Systems)


CALL TRANSFER INFORMATION
INTERNAL
EXTERNAL
SEQUENCE TO INITIATE A TRANSFER : !,
Sequence to complete a transfer :
Sequence to transfer 3-way call :
Sequence to return from busy: !,
Sequence to return from no-ans : !,
Sequence to return call screening: !,!,
!,
!,
!,
!,!,
Detect dial tone? Yes
Detect call-progress tones? Yes
Use transfer bypass digit ? Last digit
Digits that mean YES, when asking for confirmation 1
Max time for 3-way call (mins) : 5

PBX Information Screens (Windows-based Systems)





4.8.1 CALL TRANSFER SCREEN / PBX INFORMATION SCREEN FIELD DESCRIPTIONS

DOSVP:Sequence to Initiate a Transfer (Internal / External)
WINVP:Sequence to Initiate a Transfer (Internal / External) (*Call Transfer Sequence tab*)

When the Interchange is about to attempt a call transfer, it reads this field to determine how to initiate a transfer on the telephone system. The normal sequence is a hook-flash followed by a pause. The digits 0 through 9 and the characters * and # are dialed as they appear. You can also include the following special characters in these fields:

Character	Action Indicated
P	Use pulse (also known as 'rotary') dialing.
T	Use tone dialing (the default).
,	Short pause (duration can be changed on the TECHNICAL INFORMATION screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems). The default is 1 second).
%	Medium pause (equal in length to 4 commas).
L	Long pause (equal in length to 8 commas).
!	Hook-flash.
X	The system replaces the X with the box number of the mailbox performing the transfer.
F	The system replaces the F with the digits in the TRANSFER TO field of the mailbox performing the transfer.
\F	Long hook-flash (4 seconds, Rhetorex board DOS-based systems only).
Any other character	Can be used for punctuation and is ignored.

DOSVP:Sequence to Complete a Transfer (Internal / External)
WINVP:Sequence to Complete a Transfer (Internal / External) (*Call Transfer Sequence tab*)

Once the Interchange calls the party to which the call is to be transferred and determines the transfer is successful (see section 7.3), it reads this field to decide how to connect the two parties. It dials whatever sequence you enter in this field, then hangs up. Typically, this field is left blank, instructing the system to simply hang up the call.

The same special characters are available here as described above.

DOSVP:Sequence to Transfer a Three-Way Call (Internal / External)
WINVP:Sequence to Transfer a 3-Way Call (Internal / External) (*Call Transfer Sequence tab*)

This field is similar to the previous field, but is used if the call is being transferred using three-way calling (see section 7.3). Once the system calls the party to which the call is to be transferred and determines that the transfer is successful, it reads this field to decide how to connect the two parties. It dials whatever sequence you enter in this field, then remains on the line for the duration of the call. Enter the sequence the system needs to dial to conference all three parties together (a single hook-flash on most telephone systems).

If you choose to record the conversation, the system also uses the sequence indicated in this field to complete the transfer.

The same special characters are available here as described above.

DOSVP:Sequence to Return from Busy (Internal / External)
WINVP:Sequence to Return from Busy (Internal / External) (*Call Transfer Sequenced tab*)

If the system encounters a busy phone when it is transferring the call (except when performing a BLIND transfer), it returns to the caller and offers to place the caller on hold, or it plays the personal greeting in the mailbox. To determine how to return to the caller, the system consults this field, and dials the digit sequence it contains (one or two hook-flashes on most systems).

DOSVP:Sequence to Return from No-Answer (Internal / External)
WINVP:Sequence to Return from No-Answer (Internal / External) (*Call Transfer Sequence tab*)

If the system is performing a supervised transfer (WAIT FOR ANSWER or SCREEN) and encounters a no answer condition, it returns to the caller and plays the personal greeting in the mailbox. To know how to return to the caller, the system consults this field and dials the digit sequence it contains (one or two hook-flashes on most systems).

DOSVP:Sequence to Return from Call Screening
WINVP:Sequence to Return from Call Screening (*Call Transfer Sequence tab*)

If a party receiving a screened transfer chooses not to accept the call, the system consults this field and dials the sequence it contains. Note that this is a different than when the system cancels a transfer due to a busy or no answer condition, in that the called party answered the call and chose not to speak with the calling party. The sequence typically indicated in this field is two hook-flashes. The first hook-flash creates a momentary three-way conference; the second hook-flash releases the called party and retains the calling party on the line. The calling party then receives the call handling treatment selected by the called party.

Note:	Be certain to test this sequence properly. If this sequence is not correct, the called and calling parties may be connected, even though the called party has chosen not to take the call.

DOSVP:Detect Dial Tone
WINVP:Wait for Dial Tone When Making a Call (*Miscellaneous tab*)

When the system goes off-hook to make an outgoing call (for example, to call a paging service), it listens for dial tone. If it does not hear dial tone within 5 seconds, it assumes that it must have picked up just as a call was coming in (encountered a “call-collision”) Therefore, it treats the call as a normal incoming call by playing the initial greeting.

Some PBXs and key systems do not provide dial tone, or their dial tone is not standard. The system can detect most of the various types of dial tone, but you can disable this detection feature if the system cannot detect the dial tone on a particular system. If you enter NO in this field, the system does not

listen for dial tone when making outgoing calls. Instead, it goes off-hook and pause 3 seconds before dialing.

> **Note**: Because of the “call-collision” protection feature, verify you do not allow any outgoing calls on lines that are not connected. For example, if the system is equipped with 8 ports but at present you have only 6 lines connected, any outgoing call attempt on an unconnected line will cause the system to try to process an incoming call on that line.

DOSVP:*(See General Information screen for comparable field)*
WINVP:Digits to Get a Line on External Call *(Miscellaneous tab)*

If the Interchange is working behind a key system or a PBX, enter the sequence of digits it should dial to get an outside (C.O.) line when calling an external number. This number is typically a **9** followed by a pause (**9,**).

> **Note:** The digits in this field are not involved when the system is making an external call transfer. They are only used when placing an outgoing external call (for pager notification or message delivery, for example). See section 7.3 for information on external transfers.

DOSVP:*(See Technical Information screen for comparable field)*
WINVP:Disconnect Digit Sequence *(Miscellaneous tab)*

Some PBXs and key systems generate a sequence of touch tone (DTMF) digits to let the voice mail system know when a caller hangs up. If the telephone system you are working with can do this, enter the digits here. If the telephone system does not provide this feature, leave this field blank.

DOSVP:*(See Technical Information screen for comparable field)*
WINVP:Hook-flash Length *(Miscellaneous tab)*

When the system hook-flashes (for example, to transfer a call), the length of the hook-flash is determined by the value in this field. Most telephone systems accept a hook-flash of between 350 and 650 milliseconds. If in doubt, contact the vendor of the telephone equipment or the local telephone company.

If you change this value, you must exit the system and re-boot the computer for the change to take effect.

DOSVP:*(See Technical Information screen for comparable field)*
WINVP:Pause Length *(Miscellaneous tab)*

When you enter a comma in a digit sequence (for example, the digit sequence to initiate a transfer), the system interprets the comma as a pause and stops dialing for an interval. This field defines (in milliseconds) how long this interval is to be.

If you change this value, you must exit the system and re-boot the computer for the change to take effect.

DOSVP:*(See Other Customizations screen for comparable field)*
WINVP:On Answer, Pause for X Seconds, Waiting for PBX Digits *(Miscellaneous tab)*

When the system answers an incoming call, it waits the number of seconds defined in this field before playing the initial greeting. This pause allows for the transmission of voice mail integration digits (either in the form of in-band DTMF or out-of-band serial data) from the telephone system to the system. This field *must* be set when the system is connected to any type of telephone system with voice mail integration. The typical entry in this field is 1 second.

Set this field to 0 if the telephone system does not have voice mail integration.

DOSVP:Detect Call-Progress Tones
WINVP:*(No such field)*

Some PBXs and key systems do not provide standard call-progress tones (such as ring back tone, busy tone, etc.). If the VP system is not transferring calls correctly, it may be because it cannot detect the call-progress tones on the system. Run the call-progress tone training utility described in section 13.

Though it is not recommended, you can turn off call-progress tone detection. If you turn detection off, you must set the call transfer type to SCREEN in each mailbox. With this setup, when the VP system transfers a call, it does not listen for tones. Instead, it dials the number and immediately begins repeating:

"I have a call for you. Press 1 to accept the call, press 2 if you would like me to take a message..."

This message repeats the number of times you set in the RINGS TO ANSWER field (DOSVP SYSTEMS) / ASSUME NO-ANSWER AFTER X RINGS field (WINVP systems) of the mailbox. If no digit is pressed after the prompt has played the specified number of times, the VP system treats the call as a no answer call, returns to the caller as normal, and plays the mailbox greeting.

Note:	The call queuing feature is not available when call-progress tone detection has been turned off. See section 13 for more information.

DOSVP:Use Transfer Bypass Digit
WINVP:Transfer Bypass Digit Arrives area *(Miscellaneous tab)*

Use this field to specify whether you want to use the transfer-bypass feature and whether the transfer bypass digit is to be expected as the first or last digit with the mailbox number. The transfer bypass feature is described in section 7.3.

DOSVP:Digits that Mean YES When Asking for Confirmation
WINVP:*(See General Information screen for comparable field)*

There are several occasions when the VP system asks the caller for confirmation. For example, when the caller enters his/her pager callback number, the VP system repeats it and says, *"If this is correct, press 1.*" All digits you list in this field will be considered as "Yes" answers. Any other key will be treated as "No." Be advised that entries in this field affect all boxes set up on the system, not just a particular box.

If you choose to use another number instead of 1 to mean "Yes," you must re-record the prompts that specify the number '1' and change them to ask for the new number (see section 15). This includes prompts voiced in the following situations:

- Sending a message from within an open mailbox. The VP system says the recipient's name, and then voices the prompt, *"If this is correct, press 1."*
- During a message notification call. The VP system waits for the called party to answer, then says, "*Message for [name]. Press 1 if you would like to hear your messages."*
- During a three-way call. To ensure the call is still active, the VP system periodically comes on the line and says, "*Excuse me, please press 1 if you wish to continue your call."*

DOSVP:Max Time for Three-Way Call
WINVP:*(See General Information screen for comparable field)*

Since the VP system has to stay on the line for the entire duration of a three-way call, it has to know when both parties have finished their conversation, so it can hang up and release the line. To guard against the event that the end of the conversation is not detected, the VP system will come on the line after the amount of time you specify here, and prompt the parties to confirm that at least one of them is still on the call. It does this by playing the prompt, *"Excuse me, press 1 if you wish to continue your call."* If either party presses 1, the timer resets and the call can proceed. If no digit is dialed, the VP system disconnects the call.

4.9 Setting up the Technical Information Screen (DOS-based Systems)

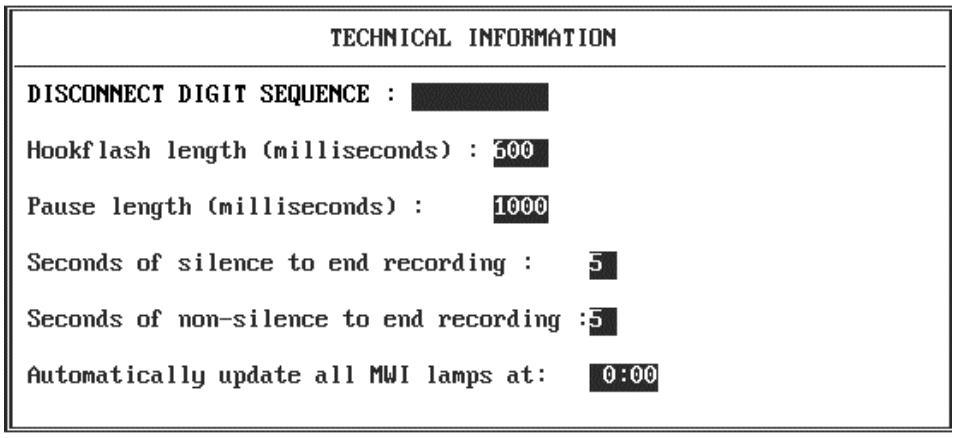
Many of the entries on this screen are preset when you run the Setup utility and specify a telephone system. If you were able to select the specific phone system with which you are working when you ran the Setup utility, you probably do not need to adjust default entries made on this screen.

Be advised that due to differences in the screen design between DOS-based and Windows-based VP systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

Fields used in DOS-based VP systems are prefaced below with **DOSVP**, and fields used in Windows-based VP systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen

or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

Technical Information Screen (DOS-based VP Systems)


TECHNICAL INFORMATION
DISCONNECT DIGIT SEQUENCE :
Hookflash length (milliseconds) : 500
Pause length (milliseconds) : 1000
Seconds of silence to end recording : 5
Seconds of non-silence to end recording : 5
Automatically update all MWI lamps at: 0:00

4.9.1 TECHNICAL INFORMATION SCREEN FIELD DESCRIPTIONS

DOSVP:Disconnect Digit Sequence
WINVP:*(See PBX Information screen for comparable field)*

Some PBXs and key systems generate a sequence of touch tone (DTMF) digits to let the voice mail system know when a caller hangs up. If the telephone system you are working with can do this, enter the digits here. If the telephone system does not provide this feature, leave this field blank.

DOSVP:Hook-flash Length
WINVP:*(See PBX Information screen for comparable field)*

When the VP system hook-flashes (for example, to transfer a call), the length of the hook-flash is determined by the value in this field. Most telephone systems accept a hook-flash of between 350 and 650 milliseconds. If in doubt, contact the vendor of the telephone equipment or the local telephone company.

If you change this value, you must exit the system and re-boot the computer for the change to take effect.

DOSVP:Pause Length
WINVP:*(See PBX Information screen for comparable field)*

When you enter a comma in a digit sequence (for example, the digit sequence to initiate a transfer), the VP system interprets the comma as a pause and stops dialing for an interval. This field defines (in milliseconds) how long this interval is to be.

If you change this value, you must exit the system and re-boot the computer for the change to take effect.

DOSVP:Number of Seconds of Silence to End Recording
WINVP:*(See General Information screen for comparable field)*

When the VP system is recording a message, it determines that the caller has finished speaking if he/she remains silent for a specific interval. Use this parameter to specify how many seconds of silence the VP system should detect before ending recording. If you enter 0 in this field, silence detection is disabled.

Note:	If the telephone system does not provide positive disconnect (DTMF tones or a break in loop current), you may experience silent messages in mailboxes when a caller hangs up before leaving a message. You can use a combination of this parameter and the parameter MINIMUM MESSAGE in the configuration file VM.CFG to minimize these "blank" messages. Use caution when setting the NUMBER OF SECONDS OF SILENCE TO END RECORDING parameter. If this time is set too short, you may stop recording caller's messages when they are simply pausing for a moment.

See section 12 for information on the MINIMUM MESSAGE parameter.

DOSVP:Number of Seconds of Non-Silence to End Recording
WINVP:*(See General Information screen for comparable field)*

While the VP system is recording a message, it is monitoring the line for dial tone (continuous non-silence). If dial tone is detected, the VP system assumes the caller has hung up, and stops recording. This field lets you specify how many seconds of continuous non-silence need to be detected before assuming it is dial tone.

Note:	If you set this number too low, a caller who pauses and says *"aaaahhhh"* could trigger the dial tone detection. If you set the number too high, 15 seconds, for example, the C.O. or PBX might remove the dial tone before it has been on the line long enough to be detected.

DOSVP:Automatically Update All MWI Lamps at
WINVP:*(See General Information screen for comparable field)*

- The VP system may need to make dozens or even hundreds of calls to update all message waiting lamps on the system. The time you enter here should be at the time of lowest activity on the system.Some telephone system automatically cancel all message waiting lamps at a pre-set time (such as midnight). Also, many telephone systems do not restore the state of message waiting lamps following a power failure. You may program the VP system to automatically re-send the message waiting lamp ON sequence for every mailbox with new messages, and the OFF sequence for every mailbox with no new messages, once each day at this time. The following limitations must be considered:

- The time set here should not conflict with the daily EXIT TO DOS TIME set on the GENERAL INFORMATION screen.

Some telephone systems do not allow unnecessary added MESSAGE WAITING ON indications to be set.

If you are not experiencing problems with message waiting lamps, leave this field blank. Intermittent performance of message waiting lamps may be caused by problems that are not related to the use of this feature.

Note:	If you have only an occasional problem with message waiting lamps (such as a power failure), you can invoke the message waiting update manually. From the main screen, press <Ctrl-F1> simultaneously. The update process begins, and you see an advisory message on the screen that the update is running. To cancel the update before it completes, press <Ctrl-F2>.

4.10 Setting up Class of Service Screens

Each mailbox on the system is assigned a class of service. The class of service assigned to the box dictates which VP system features the mailbox owner has access to and how he/she can use those features.

On DOS-based VP systems, there are 8 classes of service (0 through 7). On Windows-based VP systems, there are 32 classes of service (0 through 31). These classes service can be set up then applied to mailboxes on the VP system. Two of them are pre-configured on the system. Class of service 0 is assigned by default to the prototype mailbox 9994, which serves as a template for every mailbox that you create on the system. Class of service 7 is assigned supervisor mailbox privileges. This class of service is assigned to mailbox 70, which is also pre-configured on the system. Mailbox 70, therefore, serves as the supervisor mailbox. By calling into the system and accessing the supervisor mailbox, the system supervisor can make necessary day-to-day modifications to the voice processing system, such as adding mailboxes and changing Routing box greetings.

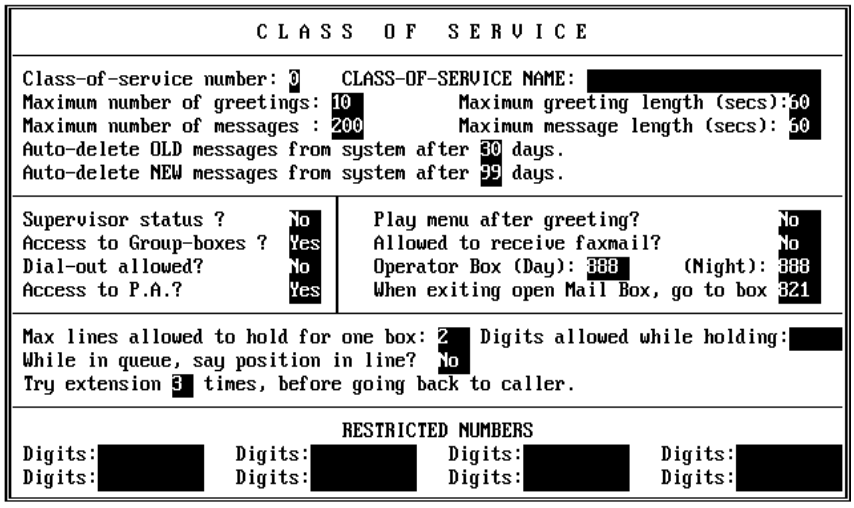
Note:	Press <F6> to progress through the available classes of service.

Be advised that due to differences in the screen design between DOS-based and Windows-based VP systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

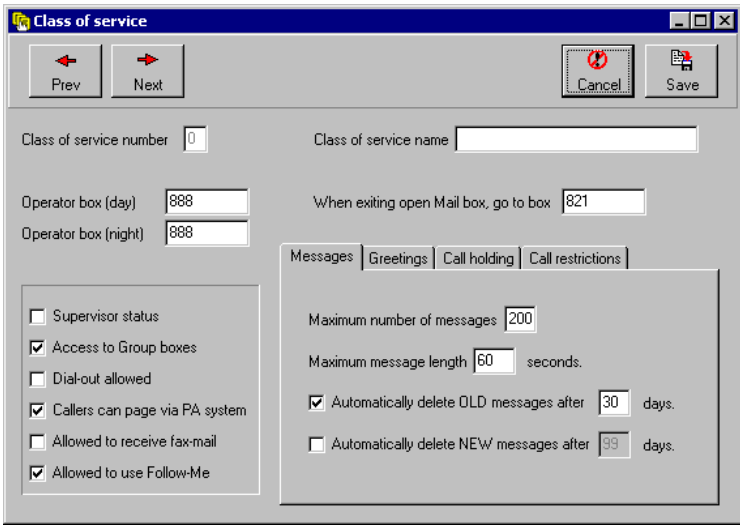
Fields used in DOS-based VP systems are prefaced below with **DOSVP**, and fields used in Windows-based VP systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

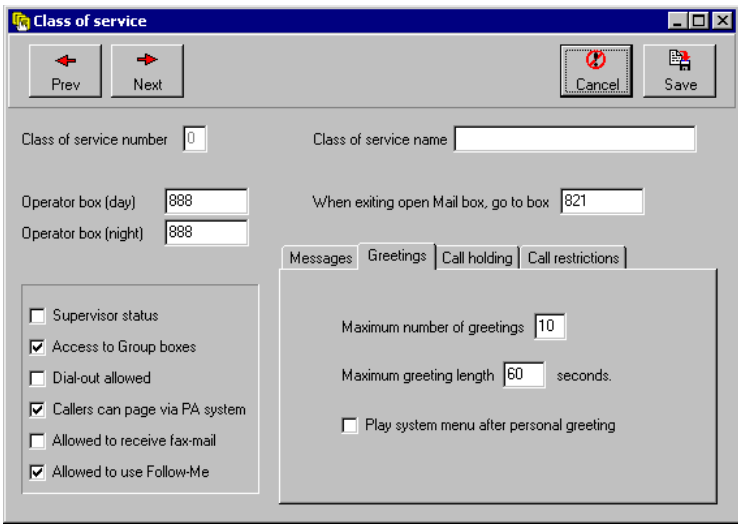
Several field descriptions discuss setting fields to YES or NO settings. In Windows-based VP systems, this equates to checking or un-checking the field's checkbox, which you do by clicking on it.

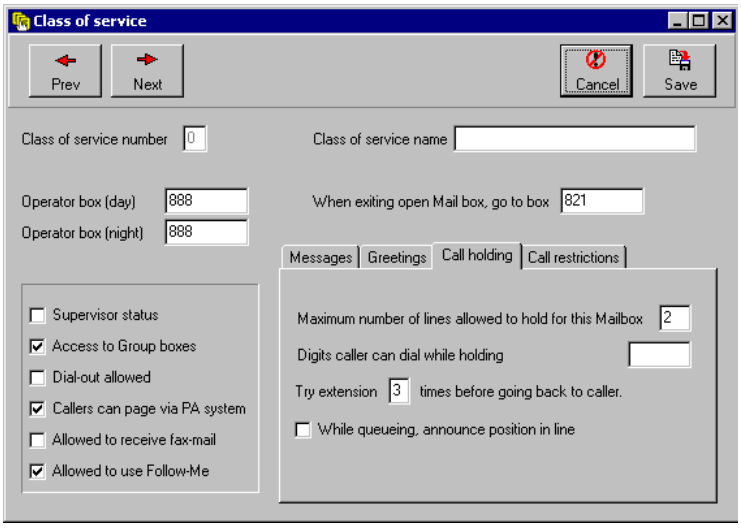
Class of Service Screen (DOS-based VP Systems)

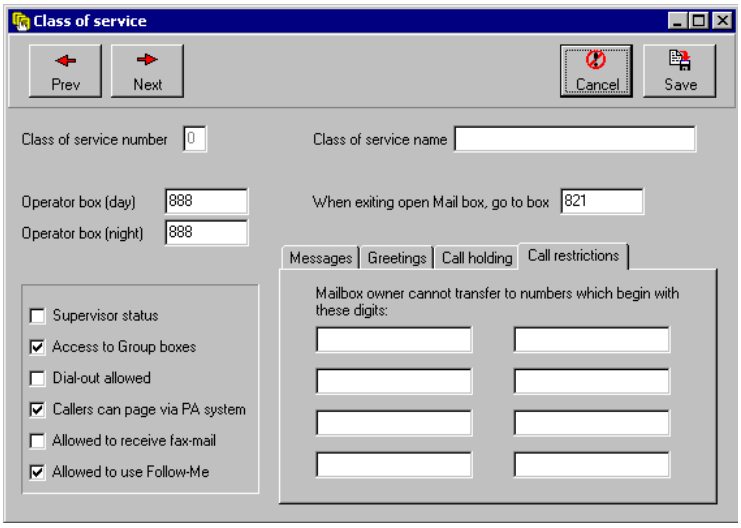

CLASS OF SERVICE
Class-of-service number: 0 CLASS-OF-SERVICE NAME:
Maximum number of greetings: 10 Maximum greeting length (secs):60
Maximum number of messages : 200 Maximum message length (secs): 60
Auto-delete OLD messages from system after 30 days.
Auto-delete NEW messages from system after 99 days.
Supervisor status ? No
Access to Group-boxes ? Yes
Dial-out allowed? No
Access to P.A.? Yes
Play menu after greeting? No
Allowed to receive faxmail? No
Operator Box (Day): 888 (Night): 888
When exiting open Mail Box, go to box 821
Max lines allowed to hold for one box: 2 Digits allowed while holding:
While in queue, say position in line? No
Try extension 3 times, before going back to caller.
RESTRICTED NUMBERS
Digits: Digits: Digits: Digits:
Digits: Digits: Digits: Digits:

Class of Service Screen (Windows-based VP Systems)




Class of service
Prev
Next
Cancel
Save
Class of service number
0
Class of service name
Operator box (day)
888
Operator box (night)
888
When exiting open Mail box, go to box
821
Messages
Greetings
Call holding
Call restrictions
Supervisor status
Access to Group boxes
Dial-out allowed
Callers can page via PA system
Allowed to receive fax-mail
Allowed to use Follow-Me
Maximum number of greetings
10
Maximum greeting length
60
seconds.
Play system menu after personal greeting


Class of service
Prev
Next
Cancel
Save
Class of service number
0
Class of service name
Operator box (day)
888
Operator box (night)
888
When exiting open Mail box, go to box
821
Messages
Greetings
Call holding
Call restrictions
Supervisor status
Access to Group boxes
Dial-out allowed
Callers can page via PA system
Allowed to receive fax-mail
Allowed to use Follow-Me
Maximum number of lines allowed to hold for this Mailbox
2
Digits caller can dial while holding
Try extension
3
times before going back to caller.
While queueing, announce position in line


Class of service
Prev
Next
Cancel
Save
Class of service number
0
Class of service name
Operator box (day)
888
Operator box (night)
888
When exiting open Mail box, go to box
821
Messages
Greetings
Call holding
Call restrictions
Supervisor status
Access to Group boxes
Dial-out allowed
Callers can page via PA system
Allowed to receive fax-mail
Allowed to use Follow-Me
Mailbox owner cannot transfer to numbers which begin with these digits:

4.10.1 CLASS OF SERVICE SCREEN FIELD DESCRIPTIONS

DOSVP:Class of Service Number
WINVP:Class of Service Number

This field indicates the number of the class of service you are currently working with. To move to the next class of service number, press <F6>. Once you assign a class of service to a mailbox, the mailbox inherits all the privileges and restrictions defined in the class of service.

DOSVP:Class of Service Name
WINVP:Class of Service Name

Use this field to give the class of service a meaningful name. This helps remind you of the purpose for the class of service. Sample names include *Supervisors, Subscribers,* etc.

DOSVP:Maximum Number of Greetings
WINVP:Maximum Number of Greetings *(Greetings tab)*

A mailbox can have up to 10 pre-recorded personal greetings. The mailbox owner may record these greetings, store them in the mailbox, choose the greeting that is to be active at any specific time. You may want to offer use of all 10 greetings to users or restrict them to fewer greetings. Use this field to define how many personal greetings users with this class of service should be allowed to record. If you set the field to 0, callers who route to a mailbox belonging to this class of service always hear the pre-recorded system prompt, *"That extension is not available..."* The default setting is **10**.

Note that in class of service 7, this field must be set to allow at least 2 greetings. Class of service 7 is assigned to mailbox 70, the supervisor mailbox that by default controls the Routing boxes on the system. Because you usually set up Routing boxes with at least 2 greetings, this parameter must be set to at least **2** in the supervisor mailbox class of service.

DOSVP:Maximum Greeting Length
WINVP:Maximum Greeting Length *(Greetings tab)*

When a mailbox owner calls in to re-record his/her personal greeting, the VP system limits the length of the new greeting to the value entered in this field. The default setting is **60**.

DOSVP:Maximum Number of Messages
WINVP:Maximum Number of Messages (*Messages tab)*

The VP system can hold up to 200 messages per mailbox. However, you may want to restrict some mailboxes to a lower limit (to conserve disk space). Use this field to define the maximum number of messages that can be stored in mailboxes assigned this class of service. Once the limit is reached for a particular mailbox, callers attempting to leave more messages in the mailbox are told that the box is full. The default setting is **200**.

DOSVP:Maximum Message Length
WINVP:Maximum Message Length *(Messages tab)*

The value in this field defines the maximum length of a message (in seconds) that a caller can leave for mailboxes belonging to this class of service. The default setting is **60**.

DOSVP:Automatically Delete Old Messages from System After X Days
WINVP:Automatically Delete Old Messages from System After X Days *(Messages tab)*

The VP system deletes messages saved as Old from mailboxes belonging to this class of service after the number of days you specify. An old message is a message that resides in the mailbox owner's Saved queue on the VP system PC. If you enter **0** in this field, an old message is deleted at midnight on the day the message became old. If you enter **1** in this field, an old message is deleted at midnight on the day following the day the message became old.

To disable deletion of Old messages, enter **99** in this field. However, do this with caution, since accumulating messages may create disk storage problems. The default setting is **30**.

DOSVP:Automatically Delete New Messages After X Days
WINVP:Automatically Delete New Messages After X Days *(Messages tab)*

Note:	Use this parameter with caution. Improper use may cause important messages to be lost.

The VP system deletes new messages from mailboxes belonging to this class of service after the number of days you specify. A new message is a message that resides in the mailbox owner's New queue on the VP system PC. If you enter **0** in this field, a new message is deleted at midnight on the day the message was received. If you enter **1** in this field, a new message is deleted at midnight on the day following the day the message was received.

To disable the deletion of new messages, retain the default setting of **99** in this field. This is the default operating mode. **If you enter a number other than 99 in this field, remember that messages are deleted whether or not the mailbox owner has listened to them.**

DOSVP:Supervisor Status
WINVP:Supervisor Status

This field defines whether mailboxes belonging to this class of service should have supervisor privileges. A supervisor can perform certain actions not available to regular mailbox owners. For example, a supervisor can add a mailbox or delete a mailbox by calling in from any telephone. The default setting in class of service 0 is NO, in class of service 7 is YES.

DOSVP:Access to Group Boxes
WINVP:Access to Group Boxes

By setting this field to YES (selecting the check box), you allow subscribers assigned this class of service to access all Group boxes set up on the system. The default setting is YES.

If you do not select this check box, mailbox owners with this class of service cannot leave messages in any Group box. If a mailbox is a member of a Group box, however, it will receive messages sent to that Group box.

DOSVP:Dial-Out Allowed
WINVP:Dial-Out Allowed

This field indicates whether the owner of a mailbox belonging to this class of service is allowed to place outgoing calls from the mailbox. The default setting is NO.

DOSVP:Access to P.A.
WINVP:Callers Can Page via PA System

When a caller is listening to a mailbox owner's greeting, one of the features the VP system offers is the option to have the call announced over the P.A. system. Use this field to allow or deny access to the P.A. feature for callers to mailboxes belonging to this class of service. The default setting is YES.

DOSVP:Play Menu After Greeting
WINVP:Play System Menu after Personal Greeting *(Greetings tab)*

If an extension is busy or does not answer, the VP system plays the mailbox owner's personal greeting. After playing the greeting, it can announce the options available to the caller (for example, *"If you would like to leave a message, press 1. To try another extension, press 3, or to speak with an operator, press 0."*). If the mailbox owners do not record these options as part of their greetings, set this field to YES so that the VP system plays the menu. If you want to allow each mailbox owner to decide which options to offer, set this field to NO and instruct each mailbox owner to include the options in his/her personal greeting. The default setting is NO.

DOSVP:Allowed to Receive Faxmail
WINVP:Allowed to Receive Faxmail

This field applies only if the system has the optional FaxMail module. Select YES here if the mailboxes in this class of service are allowed to receive FaxMail. Select NO if you do not want callers to be able to send fax documents into these mailboxes. The default setting is NO.

DOSVP:*No such field*
WINVP:Allowed to Use Follow-Me

Activate this option if the mailboxes in this class of service are allowed to use the Follow-Me feature. This feature facilitates real-time caller to called party connection. The feature attempts to transfer callers to up to 10 additional internal and external phone numbers instead of simply playing the mailbox personal greeting to the caller, if the initial attempt to transfer the call to the number in the Transfer To field of the Mailbox setup screen results in the call being returned to the VP system. De-select this option if you do not want to provide this option to Mailbox owners.

DOSVP:Operator Box (Day) (Night)
WINVP:Operator Box (Day) (Night)

When a caller is listening to a mailbox greeting, one of the options is to dial zero to reach an operator. Use these fields to indicate the mailbox to which the call should be routed if the caller indicates that he/she wishes to speak with an operator. The default setting is **888**.

DOSVP:When Exiting Open Mailbox, Go To Box
WINVP:When Exiting Open Mailbox, Go To Box

When a mailbox owner has logged in to his/her box, has concluded listening to messages, changing options, etc., and has selected to exit from the Main menu, this field tells the VP system where to send the call. VP system users should retain the default setting in this field as **821**.

DOSVP:Max Lines Allowed To Hold For One Box
WINVP:Maximum Number of Lines Allowed to Hold for this Mailbox *(Call Holding tab)*

You can limit the number of lines that can simultaneously hold for a mailbox belonging to this class of service. For example, if you set this number to 3, and lines 1, 3, and 6 are holding for a mailbox, subsequent callers are not offered the option to hold. Instead, they hear the personal greeting recorded for the box, so they can leave a message, try another extension, etc. The default setting is **2**.

> **Note**: If you want to disable the call queuing feature for the class of service, set this field to **0**.

DOSVP:Digits Allowed While Holding
WINVP:Digits Caller Can Dial While Holding *(Call Holding tab)*

While a caller is in the queue holding for an extension, he/she can press a digit to leave the queue and process the call differently. By default, the options open to the caller are the same as those available when the caller hears the personal greeting (*"If you would like to leave a message, press 1. To try another extension, press 3, or to speak with an operator, press 0."*). If you want to restrict the caller to fewer choices while in the queue, use this field to specify which digits are allowed. All other digits are ignored by the VP system while the caller is in the queue. For example, if you enter **13** in this field, the only options available to the caller are:

- To leave a message
- To try another extension

DOSVP:While In Queue, Say Position In Line
WINVP: While in Queue Announce Position in Line *(Call Holding tab)*

While a caller is in the queue, holding for an extension, the VP system can keep him/her informed on the progress of the call. If you set this field to YES, the VP system announces to the caller:

"That extension is still busy. You are number [#] in line. If you would prefer to leave a message, press 1, or to speak with an operator, press 0."

If you select NO in this field, the VP system voices:

"That extension is still busy. If you would prefer to leave a message, press 1, or to speak with an operator, press 0."

The default setting is NO.

DOSVP:Try Extension X Times Before Going Back to Caller
WINVP:Try Extension X Times Before Going Back to Caller *(Call Holding tab)*

This parameter applies only if the MAX LINES ALLOWED TO HOLD field is greater than 0. If the caller chooses to hold, the VP system plays a series of hold prompts to the caller (these are typically music or commercials). At the end of each hold prompt, the VP system tries the extension again. If it is busy, the next hold prompt is played to the caller.

After the defined number of hold prompts have been played, the VP system goes back to the caller and offers the options to remain on hold, try another extension etc. This field allows you to specify the number of hold prompts that should be played before the VP system offers these options to the caller.

As shipped, the VP system has only one hold prompt recorded (system prompt 146, see section 15). Therefore, if you enter 3 in this field, a caller queued to a busy station hears this same prompt three times before being offered the options again. If you record a second hold prompt, the caller hears prompt 146, your prompt, and 146 again before being offered the options. You may record up to 100 different hold prompts, which are played in sequence. (Remember: At the end of *each* hold prompt, the VP system tries the extension again). For information on recording prompts, see section 15. After the VP system plays the highest number hold prompt recorded, it returns to the lowest number after the next try. The default setting is **3**.

Note:	The time between tries to a busy extension is determined by the length of each hold prompt recorded. The prompt supplied with the VP system (prompt 146) is approximately 30 seconds.

DOSVP:Restricted Numbers
WINVP:Restricted Numbers *(Call Restrictions tab)*

When a mailbox owner calls in to change his/her call-transfer number, pager number, or message notification number, you may want to prevent him/her from changing it to certain numbers, such as long-distance numbers.

These fields allow you to define digit sequences that are to be blocked. The VP system looks at each of these Digits fields to determine if any of them match the number entered by the mailbox owner. If the number entered by the caller begins with the digits specified in the Digits field, the VP system defines the number entered as a match.

For example, if you enter the digits **1900** in one of the Digits fields, the VP system considers the telephone numbers 1-900-555-1212, 1-900-123-4567, 1-900-111-2222 to be matches. Telephone number 1-901-555-1212 would not be considered a match.

If you enter the digit 0 in one of the Digits fields, the VP system considers all numbers beginning with 0 to be matches. This would include calls to the operator (0), calls to the long-distance operator (00), international calls (011), and any operator-assisted call (0 followed by telephone number).

4.11 Setting Up the Other Customizations Screen (DOS-based Systems)

If the caller enters a number that matches one of the digit strings you enter here, the VP system informs the mailbox owner that the number is not acceptable and retains the current set up.

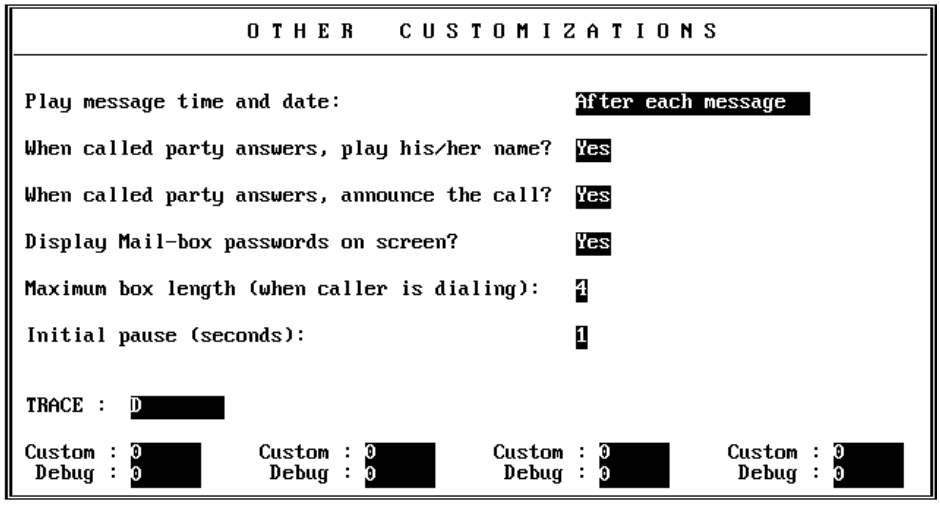
Use the OTHER CUSTOMIZATIONS screen to set up certain system-wide parameters pertaining to feature options, integration, and testing/troubleshooting functions.

To access the OTHER CUSTOMIZATIONS screen, from the Main menu select SYSTEM INFORMATION. From the System Information menu select OPTIONAL FEATURES. From the Optional Features menu select OTHER CUSTOMIZATIONS.

Be advised that due to differences in the screen design between DOS-based and Windows-based VP systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

Fields used in DOS-based VP systems are prefaced below with **DOSVP**, and fields used in Windows-based VP systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

Other Customizations Screen (DOS-based VP Systems)


O T H E R C U S T O M I Z A T I O N S
Play message time and date: After each message
When called party answers, play his/her name? Yes
When called party answers, announce the call? Yes
Display Mail-box passwords on screen? Yes
Maximum box length (when caller is dialing): 4
Initial pause (seconds): 1
TRACE : 0
Custom : 0 Debug : 0
Custom : 0 Debug : 0
Custom : 0 Debug : 0
Custom : 0 Debug : 0

4.11.1 OTHER CUSTOMIZATIONS SCREEN FIELD DESCRIPTIONS

DOSVP:Play Message Time and Date
WINVP:*(See General Information screen for comparable field)*

When a mailbox owner is listening to his/her messages, one of the options is to press 5 to hear the time and date that the message was received. Use this field to control the play of the time and date of each message. The choices are:

- WHEN CALLER ASKS—The mailbox owner must press 5 to hear time and date (this is the default)
- BEFORE EACH MESSAGE—The time and date is played automatically before each message
- AFTER EACH MESSAGE—The time and date is played automatically after each message

DOSVP:When Called Party Answers, Play His/Her Name
WINVP:*(See General Information screen for comparable field)*

This field affects only mailboxes using the WAIT FOR ANSWER or SCREEN transfer type. If this field is set to YES, when the called party answers, the VP system announces the call. The standard format is one of the following:

"I have a call for you, [name]."

"Call from [calling party's name] for [name]."if the option to get the caller's name is active on the MAILBOX screen)

This prompt is useful if you receive calls from more that one mailbox and you want to answer with the correct name of the called party. For example, several mailbox owners could change their call transfer service to send their calls to a central answering point (see section 6.6). The person receiving these calls can now answer with a personalized greeting such as, *"Mr. Smith's office," "Mr. Jones' office,"* etc.

Setting this field to NO causes the VP system to omit the called party's name and simply announce the call. The format is one of the following:

"I have a call for you."

"Call from [calling party's name]." (if the option to get the caller's name is active on the MAILBOX screen)

DOSVP:When Called party Answers, Announce the Call
WINVP:*(See General Information screen for comparable field)*

This parameter affects only the mailboxes using transfer type WAIT FOR ANSWER.

When using the WAIT FOR ANSWER transfer type, the VP system does not connect the calling and called parties until it confirms that the called party has answered. This is done in two ways:

- Voice is detected on the line
- A break in the cadence of the ringback tone is detected (see section 13)

This process may take 1 to 2 seconds from the time that the called party goes off-hook to answer an incoming call. Under normal operating conditions, the VP system informs the called party that it has detected answer by playing the system prompt:

"*I have a call for you."*

Setting this parameter to NO prevents the prompt from playing. A short tone plays in its place (system prompt 166).

> **Note:** Users should be made aware that when they first go off-hook and answer an incoming call, the calling party does not hear their initial answer (since the VP system does not connect the call until it detects the answer).

DOSVP:Display Mail-Box Passwords on Screen
WINVP:*(See General Information screen for comparable field)*

When the VP system displays the MAILBOX screen on the PC screen, there is a field PASSWORD that contains the mailbox owner's password. If you do not want the password to display on the screen, choose NO here. The PASSWORD field will be filled with stars. You can still access the PASSWORD field, and change the password if required, but you cannot view the current password.

DOSVP:Maximum Box Length When Caller is Dialing
WINVP:*(See General Information screen for comparable field)*

Box numbers in the VP system may be 2, 3, or 4 digits long (for example, you may have a mailbox 10, a mailbox 100, and a Routing box 1000). To speed up call processing, you may use this parameter to define the maximum box length that a caller might dial. Entering a number less than 4 does *not* mean you cannot have any 4-digit boxes in your system, just that any 4-digit boxes cannot be dialed directly by a caller.

For example, if the telephone system has only 3-digit extensions, you will likely have corresponding 3-digit mailboxes. In this case, enter **3** for MAXIMUM BOX LENGTH. When a caller dials a 3-digit mailbox number, the VP system processes the call immediately, not waiting for a fourth digit.

In this example, you can still use 4-digit box numbers on the system, especially for other box types such as Routing boxes, provided that these boxes are accessed in a way other than the caller dialing the box number. For example, you may use 4-digit Routing boxes as the initial boxes indicated on the LINE INFORMATION screen, in the Routing box DESTINATION FOR DIGIT fields, in any system GO TO BOX field, etc.

> **Note:** If the system has Routing box numbers that are longer than the MAXIMUM BOX LENGTH parameter, the greeting can only be recorded by using the computer keyboard. Owners of Routing boxes are not able to remotely record or change a greeting because when the VP system prompts the box owner to enter the box number of the greeting he/she wants to change, the owner is not be able to dial more than the number of digits defined in the MAXIMUM BOX LENGTH field.

DOSVP:Initial Pause
WINVP:*(See PBX Information screen for comparable field)*

When the VP system answers an incoming call, it waits the number of seconds defined in this field before playing the initial greeting. This pause allows for the transmission of voice mail integration digits (either in the form of in-band DTMF or out-of-band serial data) from the telephone system to the VP system. This field *must* be set when the VP system is connected to any type of telephone system with voice mail integration. The typical entry in this field is 1 second.

Set this field to 0 if the telephone system does not have voice mail integration.

DOSVP:Trace
WINVP:*(See Diagnostics menu options, Trace Setup)*

The VP system has several diagnostic tools called TRACE functions. Most are to be used only under the direction of Technical Support personnel.

Entries in these fields identify which trace operations will be viewed or recorded when the TRACE function is activated. Note that by making an entry in this field, you do not activate the trace, you simply define it.

See section 9 for detailed information on the VP system trace functions.

DOSVP:Custom and Debug
WINVP:*(See Diagnostics menu options, Custom Flags)*

Because the VP system has been designed to interface or integrate with hundreds of different telephone systems, there are certain parameters that have been included or modified to accommodate specific applications and/or equipment. Since it is not practical to include screen information for all parameters, special application parameters have been numbered and are invoked by setting a CUSTOM flag or DEBUG flag in these fields.

A few of the CUSTOM and DEBUG items are discussed in this manual, but most are listed in Technical Bulletins that deal with certain telephone systems and special applications.

CAUTION:

The CUSTOM and DEBUG fields should be left blank unless you are specifically instructed to make an entry, either by this manual, a Technical Bulletin, or Technical Support personnel.

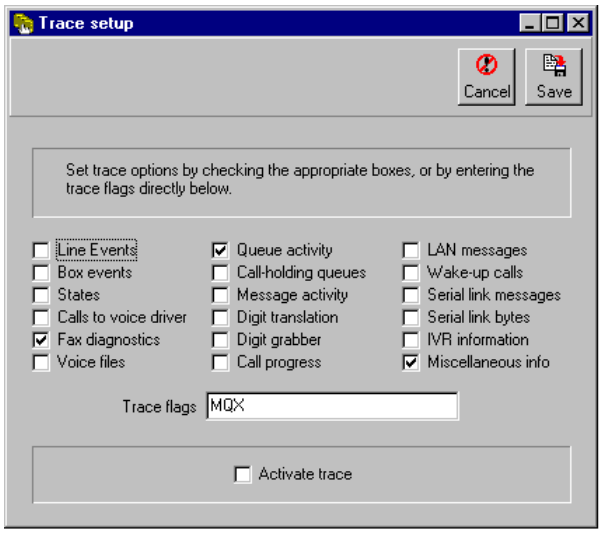
4.12 Setting up Diagnostic Menu Options (Windows-based Systems)

The Diagnostic pull-down menu contains two options that lead to screens you can set up to perform diagnostic functions on the VP system:

- Trace Setup
- Custom Flags

4.12.1 DIAGNOSTIC MENU OPTION DESCRIPTIONS

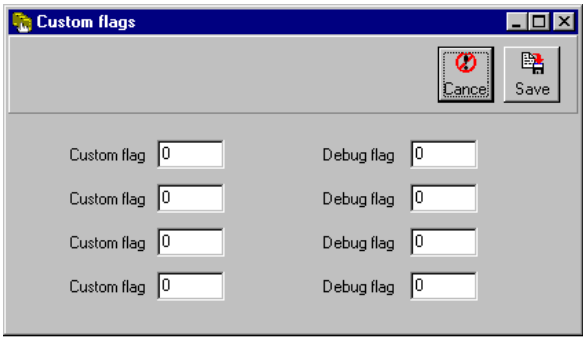
TRACE SETUP Screen



The VP system has several diagnostic tools called TRACE functions. Most are to be used only under the direction of Technical Support personnel.

On the TRACE SETUP screen, you can easily define which trace operations will be viewed or recorded when the trace function is activated. Note that by making an entry on this screen, you do not activate the trace, you simply define it. See section 9 for detailed information on the VP system trace functions.

CUSTOM FLAGS Screen



Because the VP system has been designed to interface or integrate with hundreds of different telephone systems, there are certain parameters that have been included or modified to accommodate specific applications and/or equipment. Since it is not practical to include screen information for all parameters, special application parameters have been numbered and are invoked by setting a CUSTOM flag or DEBUG flag on this screen.

A few of the CUSTOM and DEBUG items are discussed in this manual, but most are listed in Technical Bulletins that deal with certain telephone systems and special applications.

CAUTION:

The CUSTOM and DEBUG fields should be left blank unless you are specifically instructed to make an entry by a Technical Bulletin or Technical Support representative.

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5. SPECIFYING BOX INFORMATION

5.1 What is a Box?

When the VP system answers a call, it processes it by sending it to a *box*. Each box performs a specific function (for example, playing a menu to the caller and waiting for a response). It then passes the call to another box, which in turn performs its specific function, etc.

When you use the automated attendant capabilities in the VP system, you set up Routing boxes to answer incoming calls, play a list of options to callers, and route each call to a specific mailbox based on either digits dialed by the caller or on other criteria you set. The mailboxes transfer calls to their associated extensions and store messages for system subscribers. Each mailbox can also be set up to forward calls to another phone or extension number, deliver messages to another phone or pager, play one of 10 pre-recorded greetings to callers, screen calls, queue calls when the extension is busy, or record call conversations.

In addition to Routing boxes and mailboxes, the standard VP system provides several other types of boxes:

- Question box
- Directory box
- Account Number box
- Group box
- Directory box
- ACD box (or 'Customer Service box' on Windows-based systems version 10.1x or higher)

You create each type of box by accessing then completing a box setup screen for the box type you want to create. Procedures you follow to access and set up each box type are discussed in this section.

Optional modules available with some systems provide additional boxes you can set up on the system:

- IVR box
- Telemarketing box
- Gateway box and Listing boxes
- Fax box

Optional modules are discussed in separate sections later in this document.

5.2 Viewing the Current Box Setup on the System (DOS-based Systems)

On DOS-based systems, you can generate a report listing the complete box setup structure. Once you generate the report, you can review it on-screen, save it to a file, or send it to a printer.

To view the box setup structure on a DOS-based Corporate Office:

1. From the LINE STATUS screen, press <F10>. The Main menu displays and you are prompted to enter a system password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Customer level passwords on the GENERAL INFORMATION screen.
3. From the Main menu, select BOX INFORMATION. The Box Information menu displays.
4. Select the DISPLAY DATABASE option. From the menu that displays, select whether you want to view the report on screen, print it to a file (you are prompted for a filename, the file is placed in the \VM directory), or send it to a printer. Once you make a selection, the VP system generates the box structure report. To exit the DISPLAY DATABASE screen, press <F10>. You return to the Box Information menu.

5.3 Accessing Box Information Screens

Note:	Refer to section 29 for graphical illustrations of all VP system screens.

To access box information screens through the DOS-based Corporate Office screen interface:

1. From the LINE STATUS screen, press <F10>. The Main menu displays and you are prompted to enter a system password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Customer level passwords on the GENERAL INFORMATION screen.
3. From the Main menu, select BOX INFORMATION. The Box Information menu displays.
4. Select the screen you want to review or modify from the Boxes menu. When you have made any necessary modifications to the screen, press <F10> to save the changes. You return to the Box Information menu.

To access box information screens through the Windows-based VP system screen interface:

1. From the Windows desktop, double-click the DATABASE ADMINISTRATOR icon. You are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Administrator level passwords on the GENERAL INFORMATION screen.
3. Access the BOXES pull-down menu.

4. Select the screen you want to review or modify from the Boxes menu. When you have made any necessary modifications to the screen, click on the Save icon on the screen. You return to the main screen.

> **Note:** Field names and screen descriptions for both DOS-based and Windows-based systems screens are presented in this section. Each field description identifies the field name used in both types of products. Be advised that due to differences in the screen design between DOS-based and Windows-based systems, the placement of fields on several screens vary slightly. All fields on all screens *are* discussed in this section. **To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.**

Creating a Range of Boxes Using MAKEBOX.EXE

The VP system includes a Makebox utility that allows you to easily create several boxes at once. The Makebox utility is stored in the \VM directory by default. Each box is created by making a copy of the information in a prototype box you set up, then specify in the utility.

On DOS-based systems, access the Makebox utility by simply changing to the \VM directory (the VP system must not be running), typing MAKEBOX then pressing <Enter>. Follow the prompts to create a range of the box type you specify.

On Windows-based systems, the Makebox utility provides advanced options to import or export files of Mailbox information. The export option creates a text file that includes the following information for mailboxes currently set up on the system: owner's last name, owner's first name, box number, class of service number. The import option instructs the program to reference a specific text file and use information in it to create new mailboxes. The text file it references must list information for each mailbox on individual lines. It must include the following information for each box, separated by commas: owner's last name, owner's first name, box number, class of service number. The file must also have the following header line: FirstName,LastName,Mbox,COS.

An example import or export text file is shown below.

```
FirstName,LastName,Mbox,COS

Ann,Baxter,102,4

Cliff,Johnson,103,4

Daniel,Peters,104,5
```

Once the boxes are created using MAKEBOX.EXE, you can access and modify their setups manually.

5.4 Understanding Reserved Boxes

The following reserved boxes are used by the VP system and cannot be assigned to new boxes you create. Those marked with a * are used internally and cannot be viewed on the screen.

Box Number	Function
9970 – 9974	Outbound Telemarketing boxes (for use with the optional Outbound Telemarketing module only).
9986	Automatic Fax box (for use with optional IVR and Fax Distribution modules only).
9987	Automatic mailbox (for use with optional IVR module only).
9988	Automatic Allocation box (for use with optional Talking Classifieds module only).*
9989	System VCM box (for use with optional VCM module only)*
9990	A “catch-all” box. If you programmed the VP system to go to a box that does not exist, it generates an error message and routes the call to this box instead.
9991	System Message Notification box*
9992	The voice mail gateway. When calls are routed to this box, the VP system asks the caller for his/her box number and password. If the correct password is entered, the caller is given access to the mailbox as an owner (he/she can retrieve messages, change options, etc.).*
9993	The Demonstration mailbox. When a caller records a message in this box, it is immediately played back to him/her. This is normally used for demonstration purposes.
9994	The Prototype mailbox. When creating a new mailbox, the VP system initializes the data in the new mailbox by copying the contents of this box into the new mailbox.
9995	The Pager Notification box*
9996	The Message Waiting Lamp box*
9998	The Directory box. If a call is routed to this box, the caller is prompted to dial the last name of the person to whom he/she would like to speak, or (optionally) to listen to the entire set of listings.
9999	Invalid box number (displayed as blank field on setup screens)*

5.5 Setting up a Mailbox

5.5.1 WHAT DOES A MAILBOX DO?

The mailbox is usually the most common box in the entire system. You allocate a mailbox to each person for whom you want the VP system to collect messages or transfer calls.

The mailbox performs the following tasks:

- Transfers calls to the box owner (using the call-transfer capabilities of the telephone system)
- Plays owner’s personal greeting and takes messages
- Activates the owner’s digital or tone pager

- Calls the owner (if required) to deliver new messages
- Defines the owner's privileges on the system.

Figure 5-1 shows the actions performed by a mailbox on a typical call. Note that the figure has been simplified for clarity. For example, it does not include features such as transfer-bypass or pager activation.

5.5.2 UNDERSTANDING THE PROTOTYPE MAILBOX (9994)

When you set up the VP system, you create a mailbox for each subscriber who will use the system to record messages. Since most of the setup information is the same in every mailbox you create (for example, the sequence to turn message waiting lamps on and off), you should review and adjust the system's prototype mailbox before creating any mailboxes. The prototype mailbox is a template mailbox, which is copied each time you create a mailbox. By customizing as much information as possible in the prototype mailbox, you save time later when you must customize the mailboxes you created for each subscriber. The prototype mailbox is box number 9994.

It is important to understand the use of "wild card" characters when setting up the Prototype mailbox. In most installations the mailbox number will be the same as the extension number of the box owner, which is entered in the transfer TO: field. By entering the "wild card" character **X** in the TO: field of the prototype box, you instruct the VP system that the box owner's telephone number is the same as the mailbox number.

You can also enter a wild card in the SEQUENCE TO TURN MESSAGE WAITING LAMPS ON and OFF fields at the point in the sequence where the extension number is indicated. Valid characters are **X**, which indicates the VP system is to use the box number, and **F**, which indicates the system is to use the number in the transfer TO: field.

Note:	On the MAILBOX screen of the prototype mailbox, entries in the AFTER PLAYING GREETING, IF CALLER CHOOSES OTHER OPTIONS field, and AFTER LEAVING MESSAGE (DOSsystems) / AFTER RECORDING MESSAGE (WINsystems) field are the same for most mailboxes.
Note:	Every time you select to create a new mailbox, the system does so by making a copy of mailbox 9994.

To access the prototype mailbox 9994 through the DOS-based Corporate Office screen interface:

1. From the Box Information menu, select **MAILBOX**. The mailbox setup screen displays with the Page Number menu.
2. Press <F4> to access the box selection screen. A small window displays prompting you for the box number. Type **9994** then press <Enter>.

To access the prototype mailbox 9994 through the Windows-based VP system screen interface:

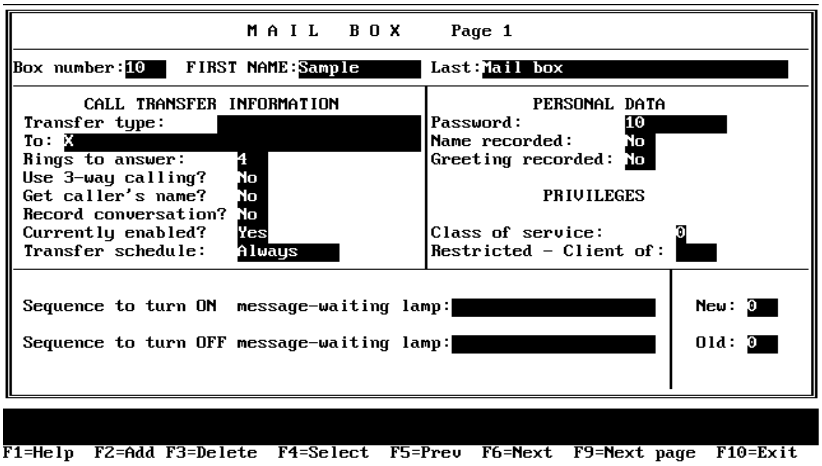
1. From the Boxes menu, select **MAILBOX**. The mailbox setup screen displays.

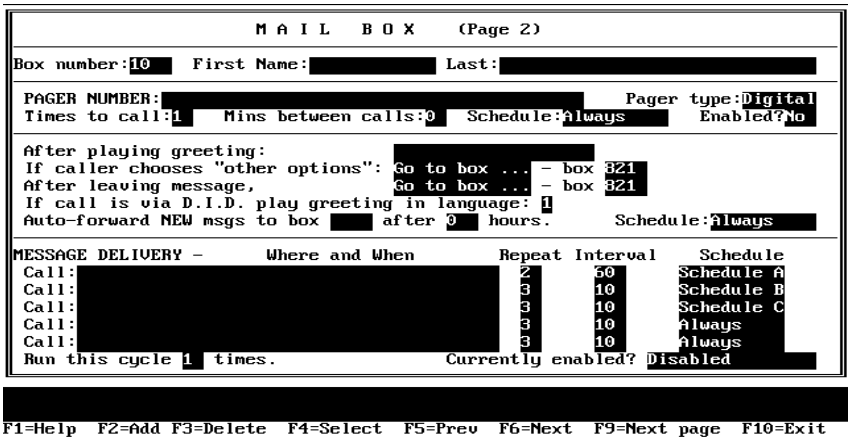
2. Press <F4> to access the box selection screen. A small window displays prompting you for the box number. Type **9994** then press <Enter> or highlight the box and click on OK.

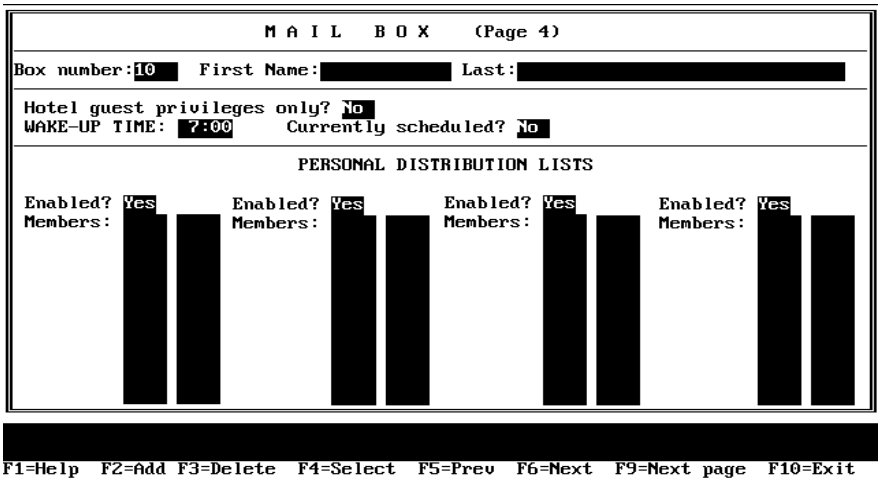
Figure 2-1 Sequence of Operations in a Typical Mailbox

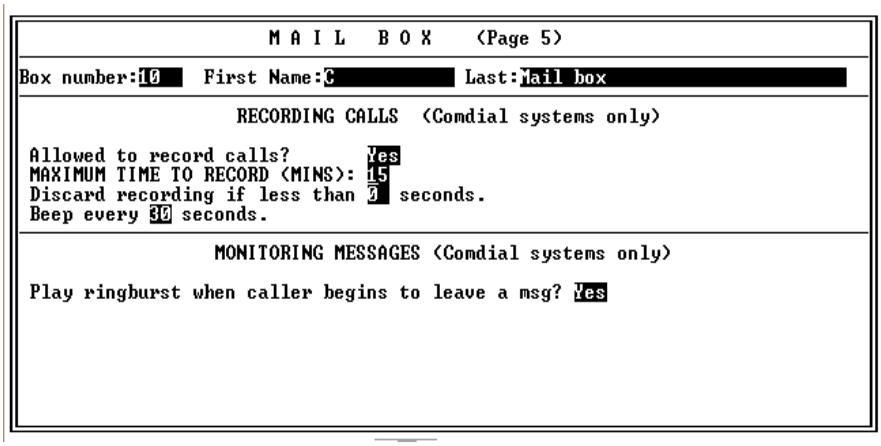
5.5.3 MAILBOX SCREENS

DOS-based VP System Mailbox Screens

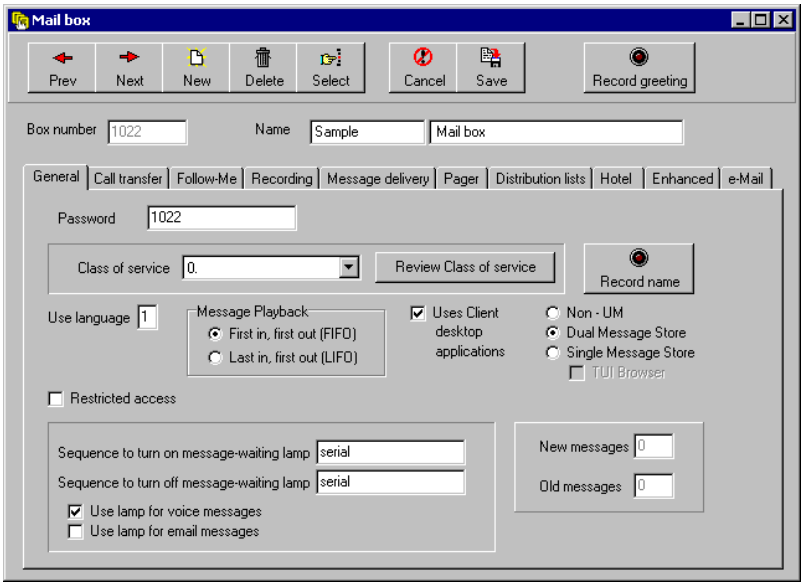


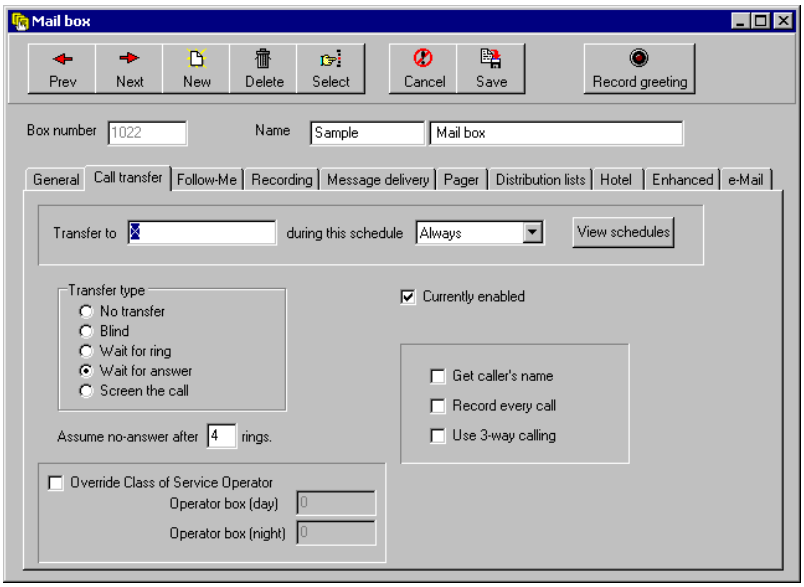

M A I L B O X (Page 2)
Box number:10 First Name: Last:
PAGER NUMBER: Pager type:Digital
Times to call:1 Mins between calls:0 Schedule:Always Enabled?No
After playing greeting:
If caller chooses "other options": Go to box ... - box 321
After leaving message, Go to box ... - box 321
If call is via D.I.D. play greeting in language: 1
Auto-forward NEW msgs to box after 0 hours. Schedule:Always
MESSAGE DELIVERY - Where and When Repeat Interval Schedule
Call: 2 60 Schedule A
Call: 3 10 Schedule B
Call: 3 10 Schedule C
Call: 3 10 Always
Call: 3 10 Always
Run this cycle 1 times. Currently enabled? Disabled
F1=Help F2=Add F3=Delete F4=Select F5=Prev F6=Next F9=Next page F10=Exit

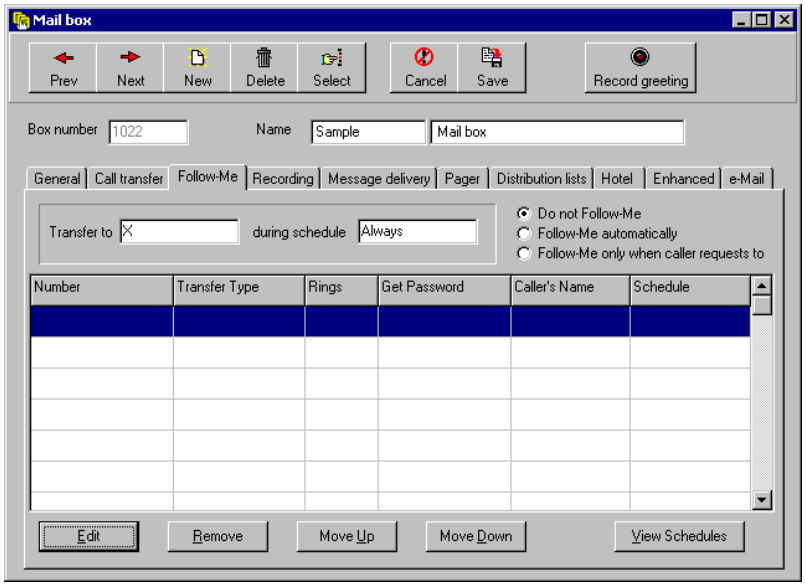

M A I L B O X (Page 4)
Box number:10 First Name: Last:
Hotel guest privileges only? No
WAKE-UP TIME: 7:00 Currently scheduled? No
PERSONAL DISTRIBUTION LISTS
Enabled? Yes
Members:
Enabled? Yes
Members:
Enabled? Yes
Members:
Enabled? Yes
Members:
F1=Help F2=Add F3=Delete F4=Select F5=Prev F6=Next F9=Next page F10=Exit

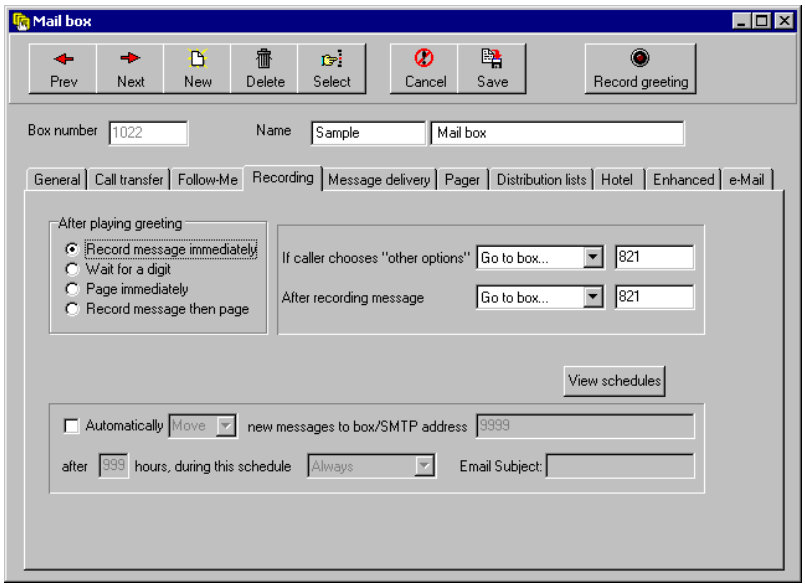

M A I L B O X (Page 5)
Box number:10 First Name:C Last:Mail box
RECORDING CALLS (Comdial systems only)
Allowed to record calls? Yes
MAXIMUM TIME TO RECORD (MINS): 15
Discard recording if less than 2 seconds.
Beep every 30 seconds.
MONITORING MESSAGES (Comdial systems only)
Play ringburst when caller begins to leave a msg? Yes

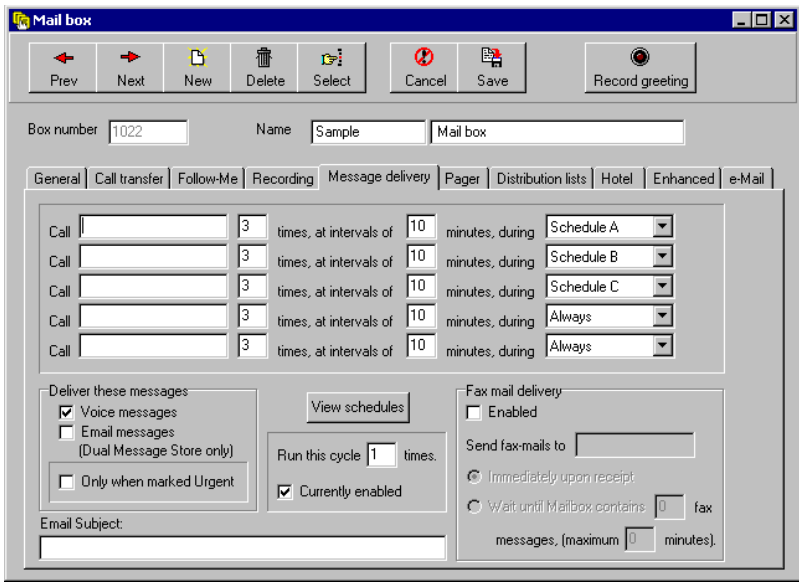
Windows-based VP System Mailbox Screens

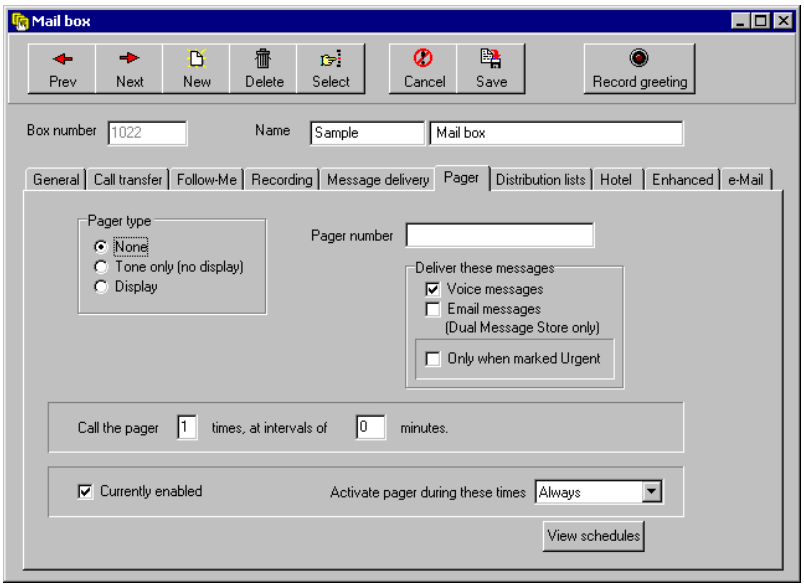


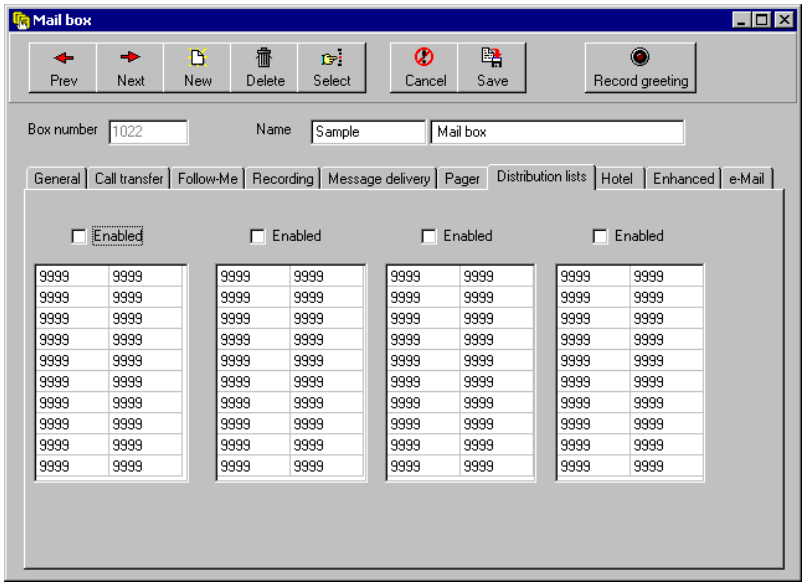


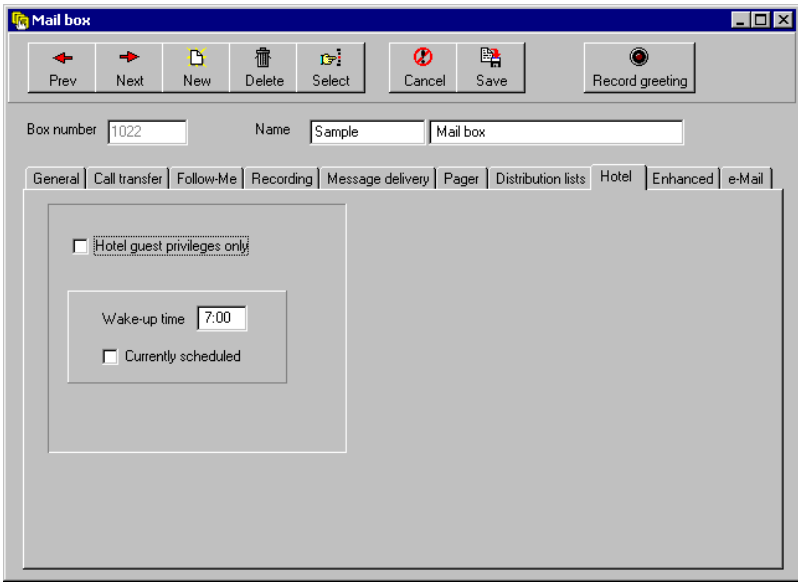

Mail box
Prev
Next
New
Delete
Select
Cancel
Save
Record greeting
Box number
1022
Name
Sample
Mail box
General
Call transfer
Follow-Me
Recording
Message delivery
Pager
Distribution lists
Hotel
Enhanced
e-Mail
Transfer to
X
during schedule
Always
Do not Follow-Me
Follow-Me automatically
Follow-Me only when caller requests to
Number
Transfer Type
Rings
Get Password
Caller's Name
Schedule
Edit
Remove
Move Up
Move Down
View Schedules

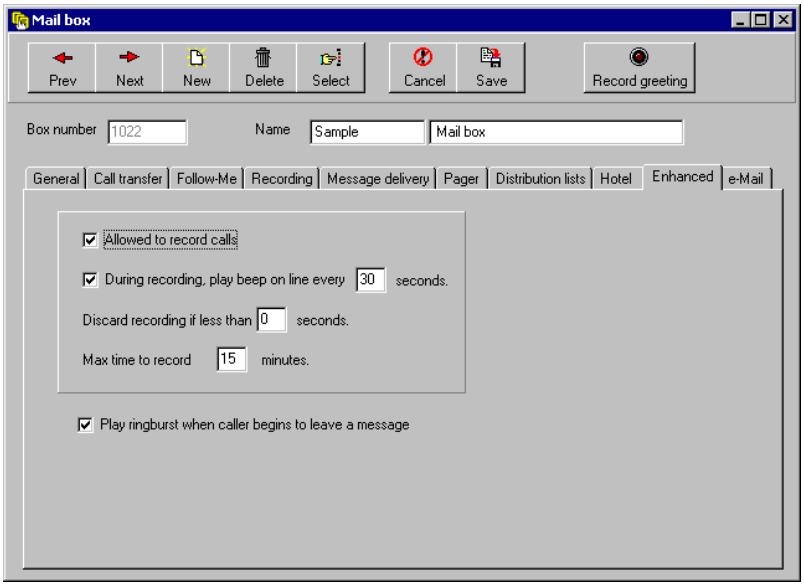

Mail box
Prev
Next
New
Delete
Select
Cancel
Save
Record greeting
Box number
1022
Name
Sample
Mail box
General
Call transfer
Follow-Me
Recording
Message delivery
Pager
Distribution lists
Hotel
Enhanced
e-Mail
After playing greeting
Record message immediately
Wait for a digit
Page immediately
Record message then page
If caller chooses "other options"
Go to box...
821
After recording message
Go to box...
821
View schedules
Automatically
Move
new messages to box/SMTP address
9999
after
999
hours, during this schedule
Always
Email Subject:

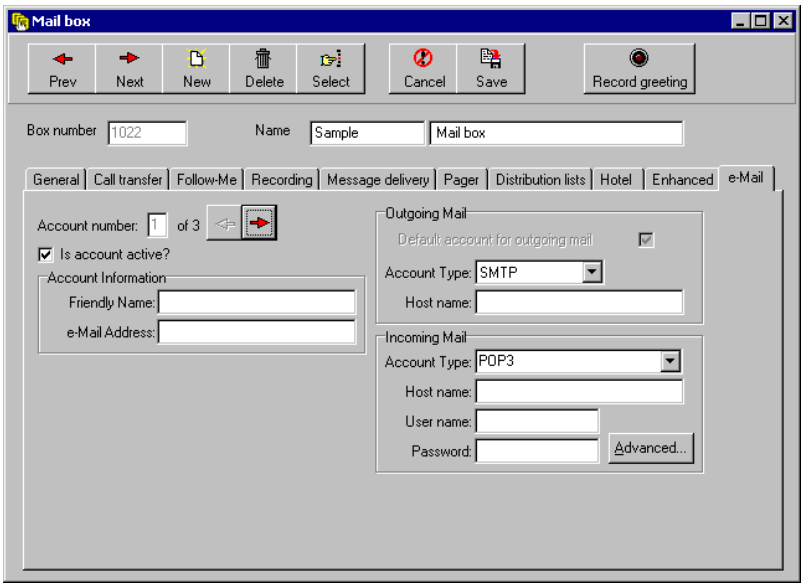

Mail box
Prev
Next
New
Delete
Select
Cancel
Save
Record greeting
Box number
1022
Name
Sample
Mail box
General
Call transfer
Follow-Me
Recording
Message delivery
Pager
Distribution lists
Hotel
Enhanced
e-Mail
Call
times, at intervals of
minutes, during
Schedule A
Schedule B
Schedule C
Always
Deliver these messages
Voice messages
Email messages
(Dual Message Store only)
Only when marked Urgent
View schedules
Run this cycle
times.
Currently enabled
Email Subject:
Fax mail delivery
Enabled
Send fax-mails to
Immediately upon receipt
Wait until Mailbox contains
fax
messages, (maximum
minutes).


Mail box
Prev
Next
New
Delete
Select
Cancel
Save
Record greeting
Box number
1022
Name
Sample
Mail box
General
Call transfer
Follow-Me
Recording
Message delivery
Pager
Distribution lists
Hotel
Enhanced
e-Mail
Pager type
None
Tone only (no display)
Display
Pager number
Deliver these messages
Voice messages
Email messages
(Dual Message Store only)
Only when marked Urgent
Call the pager
times, at intervals of
minutes.
Currently enabled
Activate pager during these times
Always
View schedules


Mail box
Prev
Next
New
Delete
Select
Cancel
Save
Record greeting
Box number
1022
Name
Sample
Mail box
General
Call transfer
Follow-Me
Recording
Message delivery
Pager
Distribution lists
Hotel
Enhanced
e-Mail
Enabled
Enabled
Enabled
Enabled
9999


Mail box
Prev
Next
New
Delete
Select
Cancel
Save
Record greeting
Box number
1022
Name
Sample
Mail box
General
Call transfer
Follow-Me
Recording
Message delivery
Pager
Distribution lists
Hotel
Enhanced
e-Mail
Hotel guest privileges only
Wake-up time
7:00
Currently scheduled





5.5.4 MAILBOX SCREEN FIELD DESCRIPTIONS

Be advised that due to differences in the screen design between DOS-based and Windows-based VP systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

Fields used in DOS-based VP systems are prefaced below with **DOSVP**, and fields used in Windows-based VP systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

Several field descriptions discuss setting fields to YES or NO settings. In Windows-based VP systems, this equates to checking or un-checking the field's checkbox, which you do by clicking on it.

DOSVP:Box Number (*Page 1 screen)*
WINVP:Box Number

Every box has its own unique *box number.* On DOS-based VP systems, the box number range is 1 to 9999, and on Windows-based VP systems, the box range is 1 to 999999999. (Several Reserved boxes are omitted from these ranges. See information presented earlier in this section on Reserved boxes.) You cannot change this field on the screen. To view a different box, press <F4> (select a box number), <F5> (previous mailbox), or <F6> (next mailbox). If you want to add a new mailbox, press <F2> (add). (Windows-based VP system users can also select from icons at the top of the screen.)

The box number is the number an outside caller dials to reach the mailbox owner. The VP system looks inside the mailbox specified for the owner's extension number and transfers the call to that number. The mailbox number can be the same as its owner's extension number, or it can be different. For example, an arbitrary range of mailbox numbers 5100 through 5109 can transfer calls to extensions 20 through 29.

If the telephone system provides voice mail integration and the mailbox numbers and extension numbers do not match, you must specify translation rules in the file TRANS.TXT to identify the conversion between extension numbers and box numbers. See section 7.13.

> **Hint:** For setup and system maintenance ease, create mailboxes with numbers that match the extensions to which they transfer calls.

DOSVP:First Name *(Page 1 screen)*
WINVP:Name (first)

The first name of the individual to which the mailbox is assigned is used for record-keeping, and it appears on the database listing.

Prior to initiating a transfer, in standard operation the VP system plays the system prompt *"Please hold while I transfer your call to [name],"* inserting the called party's name.

If you insert the @ symbol before the name in this field, (for example, "Mary" becomes "@Mary"), the recorded name is substituted with the system prompt *"that extension."*

If you insert the & symbol before the first name, no system prompt or recorded name plays.

DOSVP:Last Name *(Page 1 screen)*
WINVP:Name (last)

The last name of the individual to which the mailbox is assigned is used in conjunction with the Directory box feature. It also appears on the database listing.

The mailbox is not included in the system directory voiced to callers requesting it if the @ symbol is inserted before the first letter of the last name (for example, "Jones" becomes "@Jones"). (The mailbox is also not included in the system directory if no Name prompt has been recorded for the mailbox.)

DOSVP:Password *(Page 1 screen)*
WINVP:Password *(General tab)*

When an owner tries to open his/her mailbox to retrieve messages, the VP system asks for a password. The password can be up to 10 digits long and can consist of the digits 0 through 9 and the character *. For security reasons, we recommend that box owners use passwords at least 4 characters long and that they change them regularly.

If the password is set to 0000 (four zeros), the VP system allows access to the mailbox without asking for a password. **Use this feature with caution.**

If the password is enclosed in brackets [ ], it cannot be changed remotely by the mailbox owner.

The maximum password length can be set for the system by adjusting the configuration file option MAX PASSWORD LENGTH (see section 12). The initial setting is 4 digits.

You can choose whether or not the mailbox password is displayed in this field. To hide the password, access the OTHER CUSTOMIZATION screen (DOSVP systems) / GENERAL INFORMATION screen (WINVP systems) and select NO in the field DISPLAY MAILBOX PASSWORDS ON SCREEN. If you choose to hide passwords, this field is displayed with stars. You can still access the PASSWORD field and change the password, but you cannot view the current password.

If the password begins with two question marks (for example, ??1234), the VP system ignores the question marks when checking the password (the user enters 1234 when asked for the password). The question marks do, however, instruct the VP system to allow access to the mailbox via the digit translation file TRANS.TXT and the database lookup feature, if either of these features use the 'wild-card' password. See sections 7.13 and 7.15.

DOSVP:Name Recorded *(Page 1 screen)*
WINVP:Name button

This field indicates whether the mailbox owner has recorded his/her own name. On Windows-based VP systems, an existing recording is signified by a red light displaying on the button.

On DOS-based VP systems, when you bring the cursor into this field, a menu appears, offering the option to play, delete, copy, or record the name. By selecting RECORD you can record the name via a telephone line connected to the voice processing board. To record the name, select RECORD, press <Enter>, and call into voice mail line 1. When voice mail answers, select RECORD and speak the name. To end the recording, press <Enter> again. To hear the recording, select PLAY.

On Windows-based VP systems, you can record the name by clicking on the Record Name button, then using the controls on the Sound Recorder dialog box. At the lower right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

Note:	If there is no name recorded for the mailbox, the mailbox is not included in the system directory and the system prompt "*that extension*" is used instead of the name in various phrases.

The name is used:

- When the VP system initiates a transfer:
  "Please hold while I transfer your call to [name]."

- When the called party is busy:
  "[Name] is busy. You are number [number] in line."
- When the called party does not answer and there is no personal greeting recorded:
  "[Name] is not available right now. If you would like to leave a message press 1."
- When the VP system calls the owner to deliver his/her new messages (message notification):
  "Message for [name]. Press 1 if you would like to hear your messages."
- When another mailbox owner uses the send message feature to send a message to this box. The VP system plays the name for this box and asks for confirmation:
  "[Name]—if this is correct, press 1."
- When the directory feature is being used. The VP system plays each name that matches the letters entered by the caller.
  "[Name]—if this is the person you want, press 1."
- When a mailbox owner opens his/her mailbox.
  "[Name]—You have [number] new messages."

DOSVP:Greeting Recorded *(Page 1 screen)*
WINVP:Record Greeting button

This field indicates whether the mailbox owner has recorded his/her own personal greeting. On Windows-based VP systems, an existing recording is signified by a red light displaying on the button.

If this mailbox is allowed multiple greetings in its assigned class of service, this field only reports the status of the first greeting, greeting 0.

On DOS-based VP systems, when you bring the cursor into this field, a menu appears, offering the options to play, delete, copy, or record the greeting. By selecting RECORD, you can record the greeting via the telephone line connected to the voice processing board. To record the greeting, select RECORD, press <Enter>, and call in to voice mail line 1. When the VP system answers, select RECORD and speak the greeting. To end the recording, press <Enter> again. To hear the recorded greeting, select PLAY.

On Windows-based VP systems, you can record the greeting by clicking on the Record Greeting button, then using the controls on the Sound Recorder dialog box. At the lower right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

The personal greeting is played when a caller is routed to the mailbox and any of the following occur:

- The VP system attempts to transfer the call, but the called number does not answer
- The transfer type is set to NO TRANSFER
- The transfer-bypass feature is used

If no personal greeting is recorded, the VP system plays the default greeting prompt:

"[Name] is not available right now."

This default greeting prompt, like every other recorded phrase in the system, can be re-recorded to suit a particular application. If neither the name nor the greeting is recorded, the VP system plays:

"That extension is not available right now."

After playing the personal or default greeting, the VP system offers several options to the caller. If the caller does not select any of these options, the call proceeds as programmed on the MAILBOX screen in the field AFTER PLAYING GREETING.

> **Note**: If you want each mailbox owner to offer the options from the table shown below in his/her own personal greeting, configure the class of service for the mailbox so the VP system does not automatically offer these options.

Digit	Feature	Description
1	Message	The VP system says, *"Please speak after the tone,"* and takes a message.
2	Page	If the pager type is tone, the VP system takes a message, then calls the pager. If the pager-type is digital, the VP system asks for the caller's telephone number, then calls the pager and transmits the number (see section 7.5).
3	Other options	The VP system routes the caller via information entered in the field IF CALLER CHOOSES OTHER OPTIONS.
4	Blind transfer	The VP system transfers the call to the number listed in the mailbox, then hangs-up.
5	P.A.	The VP system announces the call over the public-address system, then transfers the call to the extension listed in the mailbox (see section 7.8).
6	Hold	The VP system keeps the caller on hold, then re-tries the extension at regular intervals (see section 7.9).
7	Send FaxMail (with voice message)	(Only valid if the optional FaxMail module has been installed and the class of service of this mailbox allows it to receive FaxMail messages.) The VP system prompts the caller to speak a brief description of the document to be faxed, then prompts the caller to begin sending.
8	Send FaxMail (no voice message)	(Only valid if the optional FaxMail module has been installed and the class of service of this mailbox allows it to receive FaxMail messages.) The VP system prompts the caller to begin sending the fax document.
0	Operator	If the system is in Day Service mode, the call is routed to the box designated as the Day Service operator box. If the system is in Lunch Service or Night Service, the call is routed to the box designated as the Night Service operator box. The operator boxes are defined in the class of service assigned to each mailbox.
#	Open mailbox	The caller is asked for the mailbox password. If it is entered successfully, he/she is able to access to the mailbox (see section 6).

Figure 2-2 Caller Options when Listening to Mailbox Greeting

Note that a mailbox can have up to 10 pre-recorded greetings (numbered 0-9), with 0 being the default greeting. The number of greetings a mailbox owner can pre-record is specified in the class of service assigned to the mailbox (see section 4.10). By calling in from any telephone and opening his/her mailbox, each mailbox user can record his/her greetings or select one of their pre-recorded greetings as the active greeting (the greeting played to callers).

DOSVP:Class of Service *(Page 1 screen)*
WINVP:Class of Service *(General tab)*

This field indicates the class of service assigned to the mailbox. A class of service is a set of privileges that are assigned to the mailbox owner. There are 8 classes of service available, numbered 0 through 7.

For example, class of service 7 may have supervisor privileges. This class of service should be assigned only to mailboxes whose owners are to be provided access to the Supervisor menu functions. Class of service 1 may be designed to be assigned to mailboxes that are issued to temporary employees. As such, class of service 1 may provide its mailboxes with access to only 1 personal greeting and no other additional privileges. Class of service 3 may be designed to be assigned to most "average" employees. This class of service may provide its mailboxes access to a certain set of features, such as call queuing and P.A. call announce capabilities. See section 4.10 for more information.

Windows-based VP system users can view and modify the classes of service by clicking on the Review Class of Service button.

DOSVP:Restricted - Client Of *(Page 1 screen)*
WINVP:Restricted Access *(General tab)*

If a valid mailbox number is entered into this field, the VP system treats this mailbox as a *restricted* mailbox. A restricted mailbox can receive messages only from other mailbox owners and can send messages only to its host mailbox, which is the mailbox number entered in this field. The restricted mailbox cannot perform any other mailbox functions.

DOSVP: *(No such field)*
WINVP:Uses Client Desktop Applications *(General tab)*

This field indicates whether the mailbox owner is permitted to use any of the following client desktop applications: VCM, Mailbox Administration/Call Control, or Unified Messaging.

Note:	The client desktop applications listed above are available as optional add-on features to the Windows-based VP system. **Access to these features is sold on a per-dedicated-seat license. Do not exceed the licensing by activating these features for more boxes than are licensed.** The VP system will monitor system usage to ensure licensing requirements for each desktop application are not exceeded. If they are, the VP system will de-activate feature access to mailboxes exceeding licensing limits.

DOSVP: *(No such field)*
WINVP:Non - UM, Single Message Store, Dual Message Store *(General tab)*

These fields indicate whether the mailbox owner is permitted to use the unified messaging feature, and if so, how the mailbox owner's voice mail and faxmail messages are to be stored:

Non-UM: The mailbox owner is not permitted to use the unified messaging feature.

Dual Message Store: The mailbox owner's voice mail and fax mail messages are stored on the VP system PC. If the VP system unified messaging client software is properly configured on the mailbox owner's client PC, the mailbox owner can access these voice mail and fax mail messages, along with e-mail messages, from a Microsoft Outlook e-mail Inbox application. See section 22 for additional information.

Single Message Store/TUI Browser option: The mailbox owner's voice mail and fax mail messages are copied and sent to an e-mail address. These messages are accessible, along with e-mail messages the mailbox owner receives, from any client PC e-mail Inbox application.

Note: The E-mail tab of the MAILBOX screen must be completed for this functionality to operate. Information on the E-mail tab informs the VP system of the e-mail address to which voice and fax mail messages must be copied.

Note: A copy of each voice mail and fax mail message also remains on the VP system PC. The mailbox owner can access this copy by logging into the voice mailbox over the telephone. Messages deleted via the telephone are not automatically deleted from the e-mail server and vice versa (there is no message synchronization). You can configure the voice mailbox to automatically purge message copies from the VP system PC after a specified length of time. Do so by modifying the class of service assigned to the Single Message Store-enabled mailboxes. In the class of service, set the fields Automatically Delete OLD/NEW Messages After [Blank] Days to the length of time you want the message copies to reside on the VP system PC. Once message copies are purged from the VP system PC, they can no longer be accessed by the mailbox owner when he/she logs into the voice mailbox over the telephone.

IMPORTANT:
See section 22 for more information on setting up Single Message Store unified messaging with and without the TUI Browser option.

DOSVP:Sequence to Turn ON Message-Waiting Lamp *(Page 1 screen)*
WINVP:Sequence to Turn on Message-Waiting Lamp *(General tab)*

This field indicates the sequence of digits the VP system uses to turn on the message-waiting lamp at the extension associated with this mailbox. The VP system turns on the message-waiting lamp to inform the owner that he/she has new messages. If this extension does not have a message-waiting lamp, leave this field blank. The field may contain digits 0 through 9 and the characters * and # as well as the following special characters:

Character	Action Indicated
P	Use pulse (also known as “rotary”) dialing.
T	Use tone dialing (the default).
,	Short pause (The duration can be changed on the TECHNICAL INFORMATION screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems). The default is 1 second.)
%	Medium pause (length equal to 4 commas).
L	Long pause (length equal to 8 commas).
!	Hook-flash (duration can be changed on the TECHNICAL INFORMATION screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems). The default is 1 second).
\F	Long hook-flash (4 seconds, Rhetorex board DOS-based systems only).
F	The VP system replaces this with the number in the TRANSFER TO field of the mailbox.
X	The VP system replaces this with the mailbox number itself.
W	The VP system inserts the current new message count. Use this character only when connecting to telephone systems that use this information to update the user’s display telephone set. If the telephone system always expects a two-digit number (such as 5 new messages must be sent as 05), enter WW. Also include the statement REPEAT MW in the system VM.CFG file (See section 12).
{}	Used to specify a line-group (for example, {A}555-1212 indicates the system is to select any line in line group A and dial the number 555-1212). See section 7.16.
Any other character	Can be used for punctuation and is ignored.

For the VP system to turn on and off a message-waiting lamp, it must be able to make a call. Ensure that at least one line is set for outgoing calls (see section 4.5) or that the specified line group has at least one line in it (see section 7.16).

Note: You can specify a time that the VP system is to refresh all message waiting lamps each day. During the refresh, the VP system sends the message waiting ON sequence to each mailbox containing at least one new message and sends the message waiting OFF sequence to each mailbox containing no new messages. See section 4.9 for more information.

DOSVP:Sequence to Turn OFF Message-Waiting Lamp *(Page 1 screen)*
WINVP:Sequence to Turn off Message-Waiting Lamp *(General tab)*

Enter the sequence of digits the VP system is to use to turn off the message waiting lamp at the extension associated with this mailbox. If there is no message waiting lamp at this extension, leave this field blank. The field may contain digits 0 through 9 and the characters * and pound # as well as the special characters listed above.

> **Note**: By default, the VP system checks to see if it needs to turn off an extension's message waiting lamp each time the mailbox owner exits from his/her mailbox. If there were new messages in the mailbox when it was opened and none when it was closed, the VP system dials the sequence to turn off the message waiting lamp. If you want the VP system to dial the message waiting OFF sequence every time the owner exits from his/her mailbox, use the REPEAT MW parameter in the VM.CFG configuration file (see section 12).

DOSVP:New *(Page 1 screen)*
WINVP:New Messages *(General tab)*

This field cannot be changed from the keyboard. It indicates the number of new messages in the mailbox. A message is *new* if the mailbox owner has not yet listened to it. Once the owner has listened to the message, it becomes an *old* message. A mailbox can hold a maximum of 200 messages.

DOSVP:Old *(Page 1 screen)*
WINVP:Old Messages *(General tab)*

This field cannot be changed from the keyboard. It indicates the number of old messages in the mailbox. Once the owner has listened to and/or saved a message, it becomes an *old* message. A mailbox can hold a maximum of 200 messages.

Not in 11 Release. This feature may be added to future release.

DOSVP:*(No such field)*
WINVP:Time Zone *(General tab)*

(add index entries here)This field sets the time zone that the mailbox owner lives in, if it differs from time zone of the voicemail server. When a time zone is selected for a mailbox that differs from that of the voicemail server, the messages the mailbox owner receives will include local times with his/her messages instead of the times that correspond to the voicemail server time zone.

DOSVP:Transfer Type *(Page 1 screen)*
WINVP:Transfer Type area *(Call Transfer tab)*

When a call is routed to the mailbox, the first action taken is to transfer the call to the number specified in the TO: field. The VP system offers several options as to how the call is transferred.

The TRANSFER TYPE options are:

- **NO TRANSFER** The VP system does not transfer the call. Instead, it plays the mailbox owner's personal greeting (if one has been recorded) or a system default greeting. The caller then has several available options before recording a message.
- **BLIND** The VP system transfers the call by dialing the number, then dropping out of the call. It transfers the call without monitoring to check whether the called party is busy, answers, etc. The final outcome of the call is the total responsibility of telephone system. If the telephone system has transfer-recall capabilities, when the telephone system transfer-recall timer expires, the call is returned to the VP system. If the telephone system provides voice mail integration, unanswered calls then go to the mailbox's personal greeting via the VP system's TRANS.TXT (digit translation) file. Otherwise, the VP system treats the call as a new call, and answers it with the initial greeting. (The VP system cannot perform call queuing when the mailbox is set up to perform BLIND transfers.)
- **WAIT FOR RING** WAIT FOR RING can be thought of as a combination of the WAIT FOR ANSWER and BLIND transfer types. If the called party is busy, the calling party is offered the same options as with the WAIT FOR ANSWER transfer type. If ringing is detected on the line, the VP system executes a BLIND transfer and drops out of the call. (The VP system can perform call queuing when the mailbox is set up to perform WAIT FOR RING transfers.)
- **WAIT FOR ANSWER** The VP system dials the number and monitors the line. If the called party is busy, the VP system offers the caller the options to hold, leave a message, call another extension, etc. If the called party is not busy, the VP system monitors the line, waiting for the called party to answer. If the called party does not answer within a specified number of rings, the VP system abandons the transfer and plays the personal greeting, takes a message, etc. If the called party does answer, the system completes the transfer. (Before completing the transfer, the VP system can announce the call with the prompt, *"I have a call for you, [mailbox owner's name],"* if these options are set up on the Other Customization screen in DOS-based VP systems or General Information screen in Windows-based VP systems.)

With WAIT FOR ANSWER transfers, because the VP system monitors the transfer, it can perform call queuing when a busy extension is detected.

- **SCREEN** The SCREEN transfer type works exactly the same way as WAIT FOR ANSWER until the called party answers. Once the called party answers, the VP system plays a system prompt offering the called party several options:
  - Press1 to accept the call. The parties are connected.
  - Press 2 to have the system voice the mailbox owner's currently active greeting to the called party.
  - Press 3 to send the calling party to the destination selected in the IF CALLER CHOOSES OTHER OPTIONS field on the MAILBOX screen.
  - Press 4 plus a greeting number (0-9) to play the selected greeting to the caller, provided the greeting has been recorded.

- Press 5 plus any valid box number to send the calling party to that box, where the call is treated as would any other call to that box.
- Press 6 to accept the call. The parties are connected, but the VP system remains connected to the call and records the conversation. The recording is stored as a message in the called party's mailbox (provided the host telephone system allows conferencing on voice mail ports).

With SCREEN transfers, because the VP system monitors the transfer, it can perform call queuing when a busy extension is detected.

DOSVP:To *(Page 1 screen)*
WINVP:Transfer to *(Call Transfer tab)*

This field contains the number to which the VP system transfers the calls that route to this mailbox. Up to 30 characters can be specified. Valid digits are 0 through 9, characters * and #, and the following special characters:

Character	Action Indicated
P	Use pulse (also known as "rotary") dialing.
T	Use tone dialing (the default).
,	Short pause (duration can be changed on the TECHNICAL INFORMATION screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems). The default is 1 second).
%	Medium pause (length equal to 4 commas).
L	Long pause (length equal to 8 commas).
!	Hook-flash (duration can be changed on the TECHNICAL INFORMATION screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems). The default is 1 second).
[ ]	Enclosing the number inside these brackets prevents the mailbox owner from being able to call in from outside and change the number.
\F	Long hook-flash (4 seconds, Rhetorex board DOS-based systems only).
I	Instructs the VP system that the number is an internal number (must be the first character). This entry instructs the system to override the INTERNAL parameter (in the configuration file VM.CFG) and treat this number as an internal call regardless of the number of digits. The VP system does not dial the sequence specified in GENERNAL INFORMATION / DIGITS TO GET A LINE ON EXTERNAL CALL.
E	Instructs the VP system that the number is an external number (must be the first character). This entry instructs the system to override the EXTERNAL parameter (in the configuration file VM.CFG) and treat this number as an external call regardless of the number of digits. The VP system does not dial the sequence specified in the DIGITS TO GET A LINE ON EXTERNAL CALL on the GENERAL INFORMATION screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems).
Any other character	Can be used for punctuation and is ignored.

The owner of the mailbox can call in and remotely change the number in the TO: field (unless the number is enclosed in brackets). After logging into a mailbox and selecting the Options menu, he/she is prompted, *"To change your call transfer feature, press 4."*

The contents of this field work in conjunction with those entered on the CALL TRANSFER screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems). Calls will not be transferred correctly unless the setup information has been entered to correspond to your telephone system.

When the VP system is about to transfer a call, it first consults the CALL TRANSFER / PBX INFORMATION setup screen. If the number to which the call is being transferred is external (outside the PBX), the VP system dials the digits in the field SEQUENCE TO INITIATE A TRANSFER - EXTERNAL. Otherwise, it dials the digits in the field SEQUENCE TO INITIATE A TRANSFER - INTERNAL. After dialing these digits, it then dials the actual number of the extension to which the call is being transferred.

DOSVP:Rings to Answer *(Page 1 screen)*
WINVP:Assume no-answer after X rings *(Call Transfer tab)*

If the transfer type is WAIT FOR ANSWER or SCREEN, this field indicates how long the VP system waits for the called party to answer before abandoning the transfer. Note that units indicated are rings, except in certain integrations when the units are in seconds.

If you turn off call-progress tone detection (see section 7.3), the number in this field represents the number of times the VP system plays the screening prompt, *"I have a call for you. Press 1 to take the call, press 2 if you would like me to take a message..."*

If the transfer type is WAIT FOR RING or BLIND, any entry in this field is ignored.

DOSVP:Use Three-Way Calling *(Page 1 screen)*
WINVP:Use 3-Way Calling *(Call Transfer tab)*

In general, three-way calling is simply a conference call involving three parties. One of the parties is a VP system mailbox. This mailbox should be part of the call only as long as needed to perform its call-processing functions. During normal call transfer functions, a three-way call may exist for just a few seconds, when the VP system performs the action indicated in the field SEQUENCE TO COMPLETE A TRANSFER on the CALL TRANSFER screen (DOSVP systems) / PBX INFORMATION screen (WINVP) systems. There are some cases, however, when limitations of the telephone system demand that the VP system remain a part of the call for its entire duration.

If the system is connected directly to a residential (R1) line, a single business (B1) line, or multiple business lines assigned to a multi-line hunt group, it is likely that the call transfer service is not available. (This limitation does not apply to Centrex service.)

Many key systems and PBXs allow the VP system to set up a three-way conference that consists of two outside parties connected to C.O. lines (trunks) with the VP system as the third, internal station party. They do not, however, allow the VP system to drop out of the call leaving the two outside parties connected (a trunk-to-trunk connection). If the telephone system does not provide trunk-to-trunk connections, use the three-way calling feature. Note that some telephone systems do not allow voice mail ports to originate a conference call.

If the VP system is to use three-way calling, it begins the call transfer sequence exactly the same way as with a normal call transfer (it places the calling party on hold and dials the transfer to number). Once the called party answers, the VP system performs an action (usually a hook-flash) to conference all three parties. This action is defined in the field SEQUENCE TO TRANSFER A THREE-WAY CALL on the CALL TRANSFER screen / PBX INFORMATION screen (WINVP systems). At this time, the VP system remains a party in the three-way conference.

During the three-way call, the VP system continually monitors the line for an indication that the call has ended. To ensure the call has not ended without being detected, the VP system periodically interrupts the conversation with the prompt, "*Excuse me, please press 1 if you wish to continue your conversation.*" If neither party presses 1,the VP system assumes the parties have hung up and frees the lines for additional calls.

You can specify how often the VP system is to interrupt the conversation by adjusting the field MAX TIME FOR A THREE-WAY CALL on the CALL TRANSFER screen / MAX DURATION FOR A 3-WAY CALL on the GENERAL INFORMATION screen (WINVP systems). Enter in the field the interval (in minutes) between interruptions.

Note:	Do not use three-way calling if the call transfer feature is available on the phone system. If in doubt, contact the telephone system manufacturer or local telephone company.

DOSVP:Get Caller's Name *(Page 1 screen)*
WINVP:Get Caller's Name *(Call Transfer tab)*

If you select YES in this field, the VP system prompts the caller for his/her name before transferring the call (if the caller does not speak a name, the VP system transfers the call anyway). If the transfer type is set to SCREEN, when the called party answers, the VP system prompts:

"I have a call from [caller's name] for [mailbox owner's name]. Press 1 to take the call, press 2 if you would like me to take a message..."

If the transfer type is set to WAIT FOR ANSWER, when the called party answers, the VP system simply announces the caller's name and connects the call.

By default, the VP system allows the caller 4 seconds to say his/her name. To adjust this time, modify the XFER NAME TIME parameter in the VM.CFG file. See section 12 for more information.

DOSVP:Record All Calls *(Page 1 screen)*
WINVP:Record Every Call *(Call Transfer tab)*

If you select YES in this field, the VP system remains on the line after completing the transfer and records the conversation. The recorded conversation is stored as a message in the mailbox.

DOSVP:Currently Enabled *(Page 1 screen)*
WINVP:Currently Enabled *(Call Transfer tab)*

Use this field to turn the call transfer service on or off from the keyboard. The owner of a mailbox also can call in and remotely change his/her call transfer setup. If this field is set to YES, the VP system transfers calls to the specified number. If the field is set to NO, the VP system does not transfer calls, but takes messages instead.

DOSVP:Transfer Schedule *(Page 1 screen)*
WINVP:During This Schedule *(Call Transfer tab)*

If the mailbox transfer type is any value other than NO TRANSFER, this field indicates when calls to this box are transferred. The options are:

Schedule	Result
ALWAYS	Calls to this mailbox are transferred at all times.
DAY SERVICE	Calls are transferred only during Day Service, as defined in the BUSINESS HOURS screen.
NIGHT SERVICE	Calls are transferred only during Night Service, as defined in the BUSINESS HOURS screen.
SCHEDULE A, B, C, or D	Calls are transferred only during the schedule, as defined on the MAILBOX PAGE 3 screen (DOSVP systems) / by pressing the View Schedules button (WINVP systems).

Setting the CURRENTLY ENABLED? field to NO overrides the transfer schedule feature. The VP system does not attempt transfers but does play the greeting and take a message.

Windows-based VP system users can view and modify the schedules defined for the mailbox by clicking on the View Schedules button.

DOSVP:*(No such field)*
WINVP:Override Class of Service Operator *(Call Transfer tab)*

When enabled, this field overrides the operator designated by the Mailbox's class of service, allowing you to specify an operator on a mailbox by mailbox basis. To designate an operator other than the operator specified by the Mailbox class of service, enter the alternate operator extension number in the OPERATOR BOX (DAY) and OPERATOR BOX (NIGHT) fields.

DOSVP:*(No such field)*
WINVP:Transfer To / During Schedule *(Follow-Me tab)*

This field displays entries made in the corresponding fields on the Call Transfer tab.

DOSVP:*(No such field)*
WINVP:Do Not Follow-Me *(Follow-Me tab)*

This option disables the Follow-Me feature for the Mailbox. Entries made in other fields of the Follow-Me tab are ignored.

DOSVP:*(No such field)*
WINVP:Follow-Me Automatically *(Follow-Me tab)*

Each time a call is routed to the Mailbox, the Mailbox looks to the Transfer To field and its associated Schedule field to determine to which number and whether the call should be transferred. If the call arrives outside of the Schedule timeframe or if the call is transferred to the number in the Transfer To field but returned to the VP system, the Follow-Me feature will invoke automatically if this Follow-Me Automatically option is selected. The Follow-Me feature facilitates real-time caller to called party connection. The feature attempts to transfer callers to up to 10 additional internal and external phone numbers instead of simply playing the mailbox personal greeting to the caller.

DOSVP:*(No such field)*
WINVP:Follow-Me Only When Caller Requests to *(Follow-Me tab)*

Each time a call is routed to the Mailbox, the Mailbox looks to the Transfer to field and its associated Schedule field to determine to which number and whether the call should be transferred. If the call arrives outside of the Schedule timeframe or if the call is transferred to the number in the Transfer To field but returned to the VP system, the Follow-Me feature can be invoked by the caller this Follow-Me When Caller Requests to option is selected. The Follow-Me feature facilitates real-time caller to called party connection. The feature attempts to transfer callers to up to 10 additional internal and external phone numbers instead of simply playing the mailbox personal greeting to the caller. To invoke the feature, the caller presses 4 when hearing the Mailbox personal greeting. This option is not announced to the caller by default. It must be included by the Mailbox owner in the Mailbox personal greeting he/she records.

DOSVP:*(No such field)*
WINVP:Edit button *(Follow-Me tab)*

Each time a call is routed to the Mailbox, the Mailbox looks to the Transfer to field and its associated Schedule field to determine to which number and whether the call should be transferred. If the call arrives outside of the Schedule timeframe or if the call is transferred to the number in the Transfer To field but returned to the VP system, the Follow-Me can attempt to transfer the caller to up to 10 additional internal and external phone numbers instead of simply playing the mailbox personal greeting to the caller. The Edit button allows you to set up additional Follow-Me phone numbers to be dialed and indicate each phone number's associated configuration parameters.

To complete the TRANSFER TO field, SCHEDULE field, Transfer Type area, ASSUME NO ANSWER option, GET CALLER'S NAME option, and RECORD CONVERSATION option, refer to field descriptions provided for these fields under the Call Transfer tab of the Mailbox setup screen.

Note:	With WAIT FOR ANSWER and SCREEN transfer type selections, the Call Queuing feature is not supported when the VP system is dialing Follow-Me numbers.

The PROMPT FOR PASSWORD field applies only if the SCREEN transfer type is selected. When selected, this option prompts the called party to enter his/her mailbox password after he/she presses 1 to accept the call. The call is not transferred if the correct password is not entered. Instead the VP system attempts to connect the caller to the next number in the Follow-Me number list.

The DISABLE CALL PROGRESS option applies only if the screen transfer type is selected. When selected, this option prevents the VP system from attempting to detect call progress tones, specifically ringing, after calling the Follow-Me number. Instead, the VP system calls the number, then immediately begins to voice the call screening menu options. Select this option if the Follow-Me number the VP system must call has unusual ringing patterns that the VP system may not recognize. Otherwise, if the VP system does not effectively detect ringing, it will not wait for an answer to connect the caller to the number, and will proceed instead with attempting to dial the next Follow-Me number entered on the screen.

The CANCEL DIGITS field applies only if the SCREEN transfer type is selected. The digits in this field are sent to the called number if no keypress response is detected after the call screening menu options are played. Enter cancel digits for numbers that may be answered by voice mail, such as cellular phone numbers, to prevent the called number from recording a message of the VP system voicing the call screening menu. The cancel digits you enter in this field are the digits the voice mail system at the called number requires a caller to press to cancel a message he/she recorded.

DOSVP:*(No such field)*
WINVP:Remove button *(Follow-Me tab)*

Clicking this button deletes the currently highlighted Follow-Me number listing and configuration.

DOSVP:*(No such field)*
WINVP:Move Up button *(Follow-Me tab)*

Clicking this button moves the currently highlighted Follow-Me number listing and configuration up one place in the order of Follow-Me numbers to be called.

DOSVP:*(No such field)*
WINVP:Move Down button *(Follow-Me tab)*

Clicking this button moves the currently highlighted Follow-Me number listing and configuration down one place in the order of Follow-Me numbers to be called.

DOSVP:*(No such field)*
WINVP:View Schedules button *(Follow-Me tab)*

Clicking this button allows you to view and modify the schedules defined for the mailbox.

DOSVP:Pager Number *(Page 2 screen)*
WINVP:Pager Number *(Pager tab)*

This field indicates the telephone number of the paging service. The mailbox owner may change the number remotely. Normally, access codes for outside lines are not required here. Instead, enter that information on the GENERAL INFORMATION screen (DOSVP systems) or PBX INFORMATION screen (WINVP systems). Note that to use the call paging feature, at least one line must be allowed outgoing calls on the LINE INFORMATION screen, or the pager number must be assigned to a line group.

To restrict pager calls to use lines in a particular line group, enter the letter (A, B, C, or D) of the line group in braces { } before the telephone number (for example, {A}5551212).

Tone or Voice pagers can be set up under the Message Delivery portion of this screen. See section 7.5 for more information on setting up pagers.

The pager number can contain the digits 0 through 9 and the characters * and pound #, as well as the following special characters:

Character	Action Indicated
P	Use pulse (also known as “rotary”) dialing.
T	Use tone dialing (the default).
,	Short pause (duration can be changed on the TECHNICAL INFORMATION screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems). The default is 1 second).
%	Medium pause (length equal to 4 commas).
L	Long pause (length equal to 8 commas).
!	Hook-flash (duration can be changed on the TECHNICAL INFORMATION screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems). The default is 1 second).
\F	Long hook-flash (4 seconds, Rhetorex board DOS-based systems only).
N	No progress tones (must be last character). The VP system ignores all call progress tones during the course of the call. When it has finished dialing, it immediately assumes the pager system has answered.
[ ]	Enclosing the number inside brackets prevents the mailbox owner from being able to call in and change it. (See section 6.6 for information on remote control of features.)
{}	Used to specify a line-group (for example, {A}555-1212 indicates the system is to select any line in line group A and dial the number 555-1212). See section 7.16.
Any other character	Can be used for punctuation and is ignored.

DOSVP:Pager Type *(Page 2 screen)*
WINVP:Pager Type area *(Pager tab)*

The VP system supports both Tone and Display (digital) pagers in this section of the mailbox programming. This field specifies which type of pager the mailbox owner has.

When a caller asks the VP system to page a mailbox owner, the VP system looks for a free line on which to call the paging service. If no lines are free to make the call, the VP system queues the request and re-tries every 10 seconds for approximately 10 minutes.

DOSVP:Times to Call *(Page 2 screen)*
WINVP:Call the Pager X times *(Pager tab)*

The VP system calls the pager the number of times indicated in this field. This can be useful in circumstances when the pager is turned off for a period or is temporarily out of pager range.

DOSVP:Minutes Between Calls *(Page 2 screen)*
WINVP:At Intervals of X Minutes *(Pager tab)*

If you enter a number greater than 1 in the above field, this field instructs the VP system how long it is to wait between the re-calls.

> **Note**: This field is used to tell the VP system how long to wait between calls to the paging service.

DOSVP:Call Schedule *(Page 2 screen)*
WINVP:Activate Pager During These Times *(Pager tab)*

The pager notification feature follows a time schedule. The options are:

Schedule	Result
ALWAYS	Pager notification is available at all times.
DAY SERVICE	Pager notification is available only during Day Service, as defined on the BUSINESS HOURS screen.
NIGHT SERVICE	Pager notification is available only during Night Service, as defined on the BUSINESS HOURS screen.
SCHEDULE A, B, C, or D	Pager notification is available only during the schedule, as defined on the MAILBOX PAGE 3 screen (DOSVP systems) / by pressing the View Schedules button (WINVP systems).

DOSVP:Enabled *(Page 2 screen)*
WINVP:Currently Enabled *(Pager tab)*

If this field is set to YES, the pager feature for this mailbox is currently on. If this field is set to NO, the pager feature is off. Use this field to turn the service on or off from the keyboard. Note that the mailbox owner also can call in and remotely turn the pager notification service on or off.

Disabling this field overrides the field indicating the schedule.

On Windows-based VP systems, the delivery options you can select from are:

Option	Action Indicated
Voice Messages	The VP system pages only when voice messages are received in the mailbox.
Email Messages (dual message store only)	The VP system pages only when e-mail messages are received in the mailbox via the dual message store unified messaging feature.
Only when marked urgent	The VP system pages only when voice mail and/or e-mail messages marked as urgent are received in the mailbox. Non-urgent messages are not delivered.

The owner of a mailbox can turn his/her pager feature ON or OFF or change the number to be called by logging into the mailbox over the telephone.

DOSVP:After Playing Greeting *(Page 2 screen)*
WINVP:After Playing Greeting area *(Recording tab)*

When a caller has been routed to a mailbox and is listening to the greeting, he/she *always* has various options available by dialing the appropriate digit (see Caller Options when Listening to Mailbox Greeting, earlier in this section). If the caller does *not* dial a digit by the time the VP system finishes playing the greeting, the VP system immediately takes whatever action is specified in this field. If the caller *does* dial a valid digit from the available options, his/her selection overrides the action entered in this field.

Wait For a Digit

This option is to be used only if the mailbox owner instructs the caller to choose an option in the personal greeting. This option provides the caller more time to enter a digit. The actual amount of time is specified using the RESPONSE TIME parameter (see section 12). If the caller does not enter a digit, the VP system then takes whatever action is specified in the field AFTER LEAVING MESSAGE.

If a caller hangs up during the playing of the mailbox greeting, there are times when the VP system might begin recording a message before it detects that the call has ended. In these cases, the mailbox ends up containing a short, blank message. By using the WAIT FOR DIGIT option rather than RECORD IMMEDIATELY, you will eliminate these false messages.

Record Immediately

The VP system voices the prompt, *"Please speak after the tone,"* and records the caller's message.

Note:	If a caller hangs up during the playing of the mailbox greeting, there are times when the VP system may begin recording a message before detecting the call has ended. In these cases, the mailbox ends up containing a short, blank message. By using the WAIT FOR DIGIT option rather than RECORD IMMEDIATELY, you eliminate these false messages.

Page Immediately

The VP system looks at what type of pager this mailbox is using. If the PAGER TYPE field is set to NONE or the PAGER NUMBER field is blank, the VP system takes whatever action is specified in the AFTER LEAVING MESSAGE field (DOSVP systems) or AFTER RECORDING MESSAGE field (WINVP systems).

If the PAGER TYPE is TONE, the VP system takes a message and calls the mailbox owner's pager.

If the PAGER TYPE is DISPLAY / DIGITAL, the VP system asks the caller to enter his/her own telephone number then calls the mailbox owner's pager and relays that number (no message is taken).

> **Note**: If the PAGER TYPE is DISPLAY / DIGITAL and the Pager notification service is currently turned off (either manually or due to the call schedule), callers hear the system prompt, *"I'm sorry, I am unable to page that party right now,"* and the call continues by taking whatever action is specified in the AFTER LEAVING MESSAGE field (DOSVP systems) or AFTER RECORDING MESSAGE field (WINVP systems).

See section 7.5 for more information on setting up pagers.

Record Then Page

The VP system looks at what type of pager this mailbox is using. If the PAGER TYPE field is set to NONE or the PAGER NUMBER field is blank, the VP system records a message but does not activate the pager.

If the PAGER TYPE is TONE, the VP system takes a message, then calls the pager. If the PAGER TYPE is DISPLAY / DIGITAL, the VP system records a message, then calls the pager. It sends the mailbox number to the pager display.

DOSVP:If Caller Chooses "Other Options" *(Page 2 screen)*
WINVP:If Caller Chooses "Other Options" *(Recording tab)*

The caller chooses other options by pressing 3 during the mailbox greeting.

You have the following options:

Option	Action Indicated
GO TO BOX	Allows the call to route to another box. The new box number is entered in the next field.
SAY GOODBYE	The VP system says, "*Good-bye,*" and hangs up.
RETURN	The VP system goes back to the previous box that handled this call (usually a Routing box).
HANG UP	The VP system immediately terminates the call by going on-hook.

DOSVP:Box *(Page 2 screen)*
WINVP:(Unlabeled Box field) (*Recording tab)*

This field contains the box number to which the call is to be transferred when the option GO TO BOX is selected in the corresponding field. This box is usually a Routing box containing a greeting or menu, or it is the mailbox number of an individual taking calls for this mailbox owner.

DOSVP:After Leaving Message *(Page 2 screen)*
WINVP:After Recording Message *(Recording tab)*

You have the following options:

Option	Action Indicated
GO TO BOX	Allows the call to route to another box. The new box number is entered in the next field.
SAY GOODBYE	The VP system says, "*Good-bye,"* then hangs up.
RETURN	The VP system goes back to the previous box that handled this call (usually a Routing box).
HANG UP	The VP system immediately terminates the call by going on-hook.

The VP system follows the action specified here when:

The caller has recorded his/her message, pressed **#** for further options, and pressed **1** to send or **4** to cancel the message.

The AFTER PLAYING GREETING field specified WAIT FOR DIGIT, and the caller did not enter a digit.

The AFTER PLAYING GREETING field called for a paging option, but the pager's ENABLED field is set to NO (in this case, the caller first hears the system prompt, *"I am not able to page that party right now."*).

DOSVP:Box *(Page 2 screen)*
WINVP:(Unlabeled Box field) (*Recording tab)*

This field contains the box number to which the call is to be transferred when the option GO TO BOX is selected in the corresponding field. This box is usually a Routing box containing a greeting or menu, or it is the mailbox number of an individual taking calls for this mailbox owner.

DOSVP:If Call is via D.I.D., Play Greeting in Language *(Page 2 screen)*
WINVP:Use Language *(General tab)*

This field indicates the language that callers hear when a call is routed to this mailbox via D.I.D. This entry is required, since the D.I.D. digits are received before the VP system is able to ask the caller which language he/she wants to use. See section 7.12 for more information on the multi-lingual option. (If the system is not using the multi-lingual option, direct-inward-dialing (D.I.D.) or in-band integration, ignore this field.)

DOSVP: *(No such field)*
WINVP:Message Playback area *(General tab)*

These fields indicate the order of message playback. If First in, first out (FIFO) is selected, the mailbox owner who retrieves messages hears urgent messages first, followed by non-urgent messages, all beginning with the oldest message of each type. If Last in, first out (LIFO) is selected, the mailbox owner hears urgent messages first, followed by non-urgent messages, all beginning with the most recent message of each type.

DOSVP:Automatically Forward NEW Messages to Box X After X Hours *(Page 2 screen)*
WINVP:Automatically Move/Copy New Messages to Box/SMTP Address X After X Hours
(Recording tab)

If a voice mail or fax mail message has been in a mailbox for the number of hours specified in this field and has not yet been listened to by the owner, the VP system forwards the message to another mailbox or Group box. To disable the auto-forward feature, leave this field blank.

On Windows-based VP systems, voice mail and fax mail messages can also be forwarded to an SMTP e-mail address, such as jsmith@xyzcompany.com.

There is also an option, available on a system-wide basis, to change the *hours* units to *minutes*. This feature is enabled by entering **256** in a CUSTOM field on the OTHER CUSTOMIZATIONS screen (DOSVP systems) / CUSTOM FLAGS screen (WINVP systems). Entering **30** in the HOURS field then indicates 30 minutes, not 30 hours. If zero is entered in this field, the message is forwarded immediately (on a busy system this may actually take up to 15 minutes). Note that the entry in this field is not automatically updated when custom code 256 is used to change hours to minutes.

> **Note**: On DOS-based VP systems, when a message is automatically forwarded, the original copy is deleted from the original mailbox. On Windows-based VP systems, messages can be *copied* to another specified mailbox or e-mail address or they can be *moved* to it. When a voice mail or fax mail message is moved, the original copy is deleted from the original mailbox. When a voice mail or fax mail message is copied, the original copy is retained in the original voice mailbox. On both DOS- and Windows-based VP systems, when a mailbox receives a message that has been auto-forwarded, the VP system informs the mailbox owner by saying, *"This message was automatically forwarded from [name of original recipient]."*

DOSVP:Schedule *(Page 2 screen)*
WINVP:During X *(Recording tab)*

Use this field to select when new messages are to be automatically forwarded. The options are:

Schedule	Result
ALWAYS	Messages are auto-forwarded at all times.
DAY SERVICE	Messages are auto-forwarded only during Day Service, as defined on the BUSINESS HOURS screen.
NIGHT SERVICE	Messages are auto-forwarded only during Night Service, as defined on the BUSINESS HOURS screen.
SCHEDULE A, B, C, or D	Messages are auto-forwarded only during the schedule, as defined on the MAILBOX PAGE 3 screen (DOSVP systems) / by pressing the View Schedules button (WINVP systems).

Windows-based VP system users can view and modify the schedules defined for the mailbox by clicking on the View Schedules button.

DOSVP: *(No such field)*
WINVP:E-mail Subject *(Recording tab)*

This field indicates the text that will display in the e-mail Subject field of any new messages that are automatically moved or copied to a specified STMP e-mail address.

Message Delivery

This section describes each field associated with the message delivery feature. See section 7.6 for more information on message delivery.

DOSVP:Call *(Page 2 screen)*
WINVP:Call *(Message Delivery tab)*

Enter the telephone number the VP system is to call to inform the mailbox owner that there are new messages in his/her mailbox.

The field can contain the DTMF digits 0-9, the characters * and #, and any of the following special characters:

Character	Action Indicated
P	Use pulse (also known as “rotary”) dialing.
T	Use tone dialing (the default).
,	Short pause (duration can be changed on the TECHNICAL INFORMATION screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems). The default is 1 second).
%	Medium pause (length equal to 4 commas).
L	Long pause (length equal to 8 commas).
!	Hook-flash (duration can be changed on the TECHNICAL INFORMATION screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems). The default is 1 second).
\F	Long hook-flash (4 seconds, Rhetorex board DOS-based systems only).
N	No progress tones (must be the last character). The VP system ignores all call progress tones during the course of the call. When it has finished dialing, it immediately assumes the pager system has answered.
[ ]	Enclosing the number inside brackets prevents the mailbox owner from being able to call in and change it.
{}	Used to specify a line-group (for example, {A}555-1212 indicates the system is to select any line in line group A and dial the number 555-1212). See section 7.16.
H	Hang up immediately after dialing the number (must be last character in the number).
M	Instructs the VP system that the number has an answering-machine attached (must be the last character in the number). When the VP system calls the number, it announces that there are messages, as usual. The announcement plays the number of times specified by the NOTIFY REPS parameter in the configuration file (see section 12). If the VP system does not receive a DTMF digit (1 for YES, anything else for NO) by the end of the announcement cycle(s), it assumes that it is talking to an answering machine and plays each new message in turn.

Character	Action Indicated (Continued)
V	Instructs the VP system to immediately begin playing the message upon answer. Include V as the last character when setting up delivery to a voice pager or when setting up network message delivery between VP systems across sites. (See sections 7.5 and 7.26.)
I	Instructs the VP system that the number is an internal number (must be the first character). This entry instructs the system to override the INTERNAL parameter (in the configuration file VM.CFG) and treat this number as an internal call regardless of the number of digits. The VP system does not dial the sequence specified in GENERNAL INFORMATION / DIGITS TO GET A LINE ON EXTERNAL CALL.
E	Instructs the VP system that the number is an external number (must be the first character). This entry instructs the system to override the EXTERNAL parameter (in the configuration file VM.CFG) and treat this number as an external call regardless of the number of digits. The VP system does not dial the sequence specified in the DIGITS TO GET A LINE ON EXTERNAL CALL on the GENERAL INFORMATION screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems).
Any other character	Can be used for punctuation and is ignored.

The owner of a mailbox can call in and remotely change the first message notification number but cannot indicate special characters.

Starting with software Release 10.4 of the Window-based VP system, you can also use the Message Delivery feature to send an e-mail notification to Mailbox owners when they receive new voice mail messages. You can enter up to 5 e-mail addresses, one in each Call field, to have the VP system send an e-mail notification to each e-mail address. (If you enter a subject in the E-MAIL SUBJECT field, the message delivery feature will use that subject when it delivers the notifications.)

Note: If you enter an e-mail address in this field, the VP system will attempt delivery one time only at the interval you specify. If the e-mail address is incorrect or the e-mail notification does not reach its destination for any reason, the system will not make another attempt. As a workaround, you can enter the same e-mail address in more than one CALL field, setting a different interval for each. In this case, however, the e-mail inbox may receive multiple notifications for the same message.

DOSVP:Repeat *(Page 2 screen)*
WINVP:X Times *(Message Delivery tab)*

This field indicates the number of successful calls that the VP system is to make to each telephone number. A successful call is generally defined as one where the VP system has seized an available line port, dialed the number, and detected an answer. If the call is not successful (for example, the called number was busy), the VP system automatically re-tries every few seconds up to twenty times.

DOSVP:Interval *(Page 2 screen)*
WINVP:Intervals of X *(Message Delivery tab)*

If the field to the left of this field contains a number greater than 1 or there are additional call number sequences, this field indicates the interval (in minutes) between calls to this number and/or the interval before proceeding to the next call number sequence.

DOSVP:Schedule *(Page 2 screen)*
WINVP:During X *(Message Delivery tab)*

This field indicates when the VP system is to deliver messages to this number. The options are:

Schedule	Result
ALWAYS	This number is called any time there are new messages in the mailbox.
DAY SERVICE	This number is called only during Day Service, as defined on the BUSINESS HOURS screen.
NIGHT SERVICE	This number is called only during Night Service, as defined on the BUSINESS HOURS screen.
SCHEDULE A, B, C, or D	This number is called only during the schedule, as defined on the MAILBOX PAGE 3 screen (DOSVP systems) / by pressing the View Schedules button (WINVP systems).

Windows-based VP system users can view and modify the schedules defined for the mailbox by clicking on the View Schedules button.

DOSVP:Run This Sequence X Times *(Page 2 screen)*
WINVP:Run This Cycle X Times *(Message Delivery tab)*

This field indicates the number of times the VP system is to run the message delivery sequence. Once the VP system calls every number listed, it has run the message delivery sequence one time.

DOSVP:Currently Enabled *(Page 2 screen)*
WINVP:Deliver These Messages *(Message Delivery tab)*

This field indicates which messages the VP system is to deliver. On DOS-based VP systems, the options are:

Option	Action Indicated
DISABLED	The VP system does not deliver any messages received in the mailbox.
URGENT MSGS ONLY	The VP system delivers only messages marked received in the mailbox as urgent. Non-urgent messages are not delivered.
ALL MESSAGES	The VP system delivers all messages received in the mailbox.

Setting this field to DISABLED overrides the field indicating the schedule.

On Windows-based VP systems, the delivery options you select from are:

Option	Action Indicated
VOICE MESSAGES	The VP system delivers voice messages received in the mailbox.
EMAIL MESSAGES (DUAL MESSAGE STORE ONLY)	The VP system delivers e-mail messages received in the mailbox via the dual message store unified messaging feature.
ONLY WHEN MARKED URGENT	The VP system delivers only messages voice mail and/or e-mail messages marked as urgent. Non-urgent messages are not delivered.

The owner of a mailbox can turn his/her message delivery feature ON or OFF or change the first number to be called by logging into the mailbox over the telephone. The other telephone numbers, if in use, cannot be changed this way.

DOSVP:*(No such field)*
WINVP:E-mail Subject *(Message Delivery tab)*

Using this field, you can specify the subject line that will display with message notifications delivered by the VP system to an e-mail address.

DOSVP:Schedule *(Page 3 screen)*
WINVP:Schedule *(Schedule dialog box)*

The four schedules (A, B, C, and D) can be applied to any of four features: call transfer, pager notification, automatic forwarding of new messages, and message delivery. The feature or features assigned to a schedule operate only between the START and END times for the days specified.

DOSVP:Start *(Page 3 screen)*
WINVP:Start *(Schedule dialog box)*

This field indicates the time at which this schedule begins on the day. Time is indicated in 24-hour format (for example, 8:00 PM is specified as 20:00).

DOSVP:End *(Page 3 screen)*
WINVP:End *(Schedule dialog box)*

This field indicates the time at which this schedule ends on the day. Time is indicated in 24-hour format (for example, 8:00 PM is specified as 20:00).

> **Note**: If you want the schedule to be active all day, enter 00:00 for the START time and 24:00 for the END time.

DOSVP:*(No such field)*
WINVP:Send Fax Mails To *(Message Delivery tab)*

This field indicates the fax number to which the VP system automatically will send fax mail messages received in the mailbox. Once a fax mail message is sent to this number, the message is moved to the mailbox's Saved message queue. If no fax number is specified, any fax mail messages received in the box are stored as new messages and can be retrieved by the mailbox owner by logging into the mailbox at any time. When manually retrieving fax mail messages, the mailbox owner may specify any fax number to which the fax should be sent.

DOSVP:*(No such field)*
WINVP:Immediately Upon Receipt *(Message Delivery tab)*

When selected, this field sets the VP system so it immediately faxes any fax mail messages received in the mailbox to the fax number specified in the SEND FAX MAILS TO field.

DOSVP:*(No such field)*
WINVP:Wait Until Mailbox Contains X Fax Messages (Maximum X Minutes) *(Message Delivery tab)*

When selected, this field sets the VP system so it does not immediately fax any fax mail messages received in the mailbox to the fax number specified in the SEND FAX MAILS TO field. Instead, the VP system waits until the mailbox has either collected the number of fax messages specified or until the maximum number of minutes specified expires, whichever comes first.

DOSVP:Hotel Guest Privileges Only *(Page 4 screen)*
WINVP:Hotel Guest Privileges Only *(Hotel tab)*

When set to YES, this field restricts the options available to the mailbox. When the mailbox owner opens his/her mailbox, the only options are listening to his/her messages or scheduling a wake-up call. See section 8.

DOSVP:Wake-Up Time *(Page 4 screen)*
WINVP:Wake-Up Time *(Hotel tab)*

This field displays the time the VP system places a call the extension indicated in the TRANSFER TO field. The VP system does not actually place the call at the time specified here unless the CURRENTLY SCHEDULED field (below) is set to YES. The mailbox owner can also schedule a wake-up call by calling into the system. (See section 8.)

DOSVP:Currently Scheduled *(Page 4 screen)*
WINVP:Currently Scheduled *(Hotel tab)*

If this field is set to YES, the VP system calls the extension indicated in the TRANSFER TO field at the time specified in the WAKE-UP-TIME field. (See section 8 for more information.)

DOSVP:Enabled *(Page 4 screen)*
WINVP:Enabled *(Distribution lists tab)*

Each mailbox can create up to 4 personal distribution lists, each containing up to 20 mailbox numbers. This field controls how many lists are available to the mailbox. Use this field to indicate whether the corresponding list is available to the mailbox owner.

DOSVP:Members *(Page 4 screen)*
WINVP:(Unlabeled Members fields) *(Distribution lists tab)*

Each distribution list can contain up to 20 members. Only mailboxes can be members of a personal distribution list. (You cannot include a Group box on the list.) These fields indicate the mailboxes currently included as part of each distribution list.

DOSVP:(*Page 5 screen)*
WINVP:*(Enhanced Tab)*

This screen contains fields that are functional only with certain phone systems that provide call recording capabilities. Field entries indicate whether the mailbox owner is permitted to use the record call feature; whether and how often a beep, audible to all conversation participants, is to sound during recordings; the minimum length in seconds a recording must be to be retained on the system; the maximum number of recording minutes allowed per call; and, when a caller is prompted to leave a message in the mailbox, whether a short ringburst is to sound on the subscriber's phone. Each recorded call is stored as a new message in the mailbox owner's voice mailbox.

Understanding the E-Mail Tab

Whether or not the E-mail tab must be completed for this mailbox owner depends on which of the following unified messaging feature options was selected on the General Tab of the MAILBOX screen: Non-UM, Single Message Store, Dual Message Store.

> **Note:** For detailed information on unified messaging features, refer to section 22.2.2.

Each of these options is described below with information indicating whether the E-mail tab should be completed:

Non-UM: The mailbox owner is not using unified messaging features. Do not complete the E-mail tab, as information you input will be ignored by the VP system.

Dual Message Store: The mailbox owner is using unified messaging features. Voice and fax mail messages are to be stored on the VP system PC, and e-mail messages are to be stored on a POP3 or IMAP4 compliant e-mail server (or associated Personal Folder on the mailbox owner's PC hard drive). Complete this E-mail tab if both of the conditions apply:

The subscriber de-activates his/her mailbox's agent software by either a) turning off his/her computer or b) selecting the specific option EXIT AND LOG OFF from the Microsoft Outlook Inbox application File pull-down menu.

The subscriber wants to be able to listen to new e-mail messages that arrive after agent software has been de-activated by logging into his/her voice mailbox over the telephone. (The subscriber is away from the office but still wants to be able to call in to hear new e-mail messages, for example.)

The information on the E-mail tab of the MAILBOX screen allows the VP system's Proxy E-mail Client (or *PEC*) service to log into the e-mail server on behalf of the client PC and copy messages to the VP system PC. With the PEC service running, subscribers can retrieve (via telephone) new e-mail messages they receive while the agent is not running on their desktop.

On the E-mail tab of the MAILBOX SETUP screen you enter information on up to 3 different e-mail accounts the subscriber uses. By completing this tab for each account, the VP system is able to retrieve e-mail when the agent is not running. This way, the mailbox owner can call into his/her mailbox from the telephone to retrieve the e-mail he/she has received through each of the accounts defined—in addition to his/her phone mail messages.

Single Message Store/TUI Browser: The mailbox owner is using unified messaging features. Voice and fax mail messages are copied and sent to an IMAP4 e-mail account. These messages are accessible, along with e-mail messages the mailbox owner receives, from any client PC e-mail Inbox application.

The E-mail tab of the MAILBOX screen must be completed for this functionality to operate. Information on the E-mail tab informs the VP system of the e-mail address to which voice and fax mail messages must be copied.

Note: If Single Message Store is selected, a copy of each voice mail and fax mail message also remains on the VP system PC. The mailbox owner can access this copy by logging into the voice mailbox over the telephone. Messages deleted via the telephone are not automatically deleted from the e-mail server and vice versa (there is no message synchronization). You can configure the voice mailbox to automatically purge message copies from the VP system PC after a specified length of time. Do so by modifying the class of service assigned to the Single Message Store-enabled mailboxes. In the class of service, set the fields Automatically Delete OLD/NEW Messages After [Blank] Days to the length of time you want the message copies to reside on the VP system PC. Once message copies are purged from the VP system PC, they can no longer be accessed by the mailbox owner when he/she logs into the voice mailbox over the telephone.

IMPORTANT:
See section 22 for more information on setting up Single Message Store unified messaging with and without the TUI Browser option.

Complete the fields on the E-mail tab using the field descriptions provided below:

DOSVP:*(No such field)*
WINVP:Account Number *(E-mail tab)*

If the mailbox owner has more than one e-mail account, the E-mail tab can include information for up to 3 different accounts. Once all fields are completed on this screen for the first e-mail account, you can access a second and third E-mail tab to enter information for additional accounts by clicking on the left and right arrow buttons next to the ACCOUNT NUMBER field.

Note:	For Single Message Store users: Voice mail and fax mail message copies are placed in each e-mail account you specify.
Note:	For Dual Message Store users: The e-mail reader will not be able to voice e-mail over the telephone for any account that is not set up on the subscriber's desktop.

DOSVP:*(No such field)*
WINVP:Is Account Active *(E-mail tab)*

When un-checked, this box indicates an account that is currently not an active account for the mailbox owner. The VP system will not access this account.

DOSVP:*(No such field)*
WINVP:Account Information Area – Friendly Name *(E-mail tab)*

This field indicates the name that is to display in the From field on messages recipients receive in their e-mail Inbox from this mailbox owner. Typically, the Friendly Name is simply the mailbox owner's first and last name.

DOSVP:*(No such field)*
WINVP:Account Information Area – E-Mail Address *(E-mail tab)*

This field indicates the e-mail address to be used to send the subscriber's e-mail messages.

DOSVP:*(No such field)*
WINVP:Outgoing Mail Area – Default Account for Outgoing Mail *(E-mail tab)*

This field is active only for Dual Message Store unified messaging mailboxes if more than one E-mail tab is completed for the subscriber because he/she has multiple e-mail accounts. Check the field on the appropriate E-mail tab to indicate which account is to be used to send outgoing e-mail the subscriber sends.

DOSVP:*(No such field)*
WINVP:Outgoing Mail Area – Account Type *(E-mail tab)*

This field indicates the method the VP system will use to send messages to the e-mail server. Select the SMPT option in this field. (Do not select SendMail unless advised by technical support personnel.)

DOSVP:*(No such field)*
WINVP:Outgoing Mail Area – Host Name *(E-mail tab)*

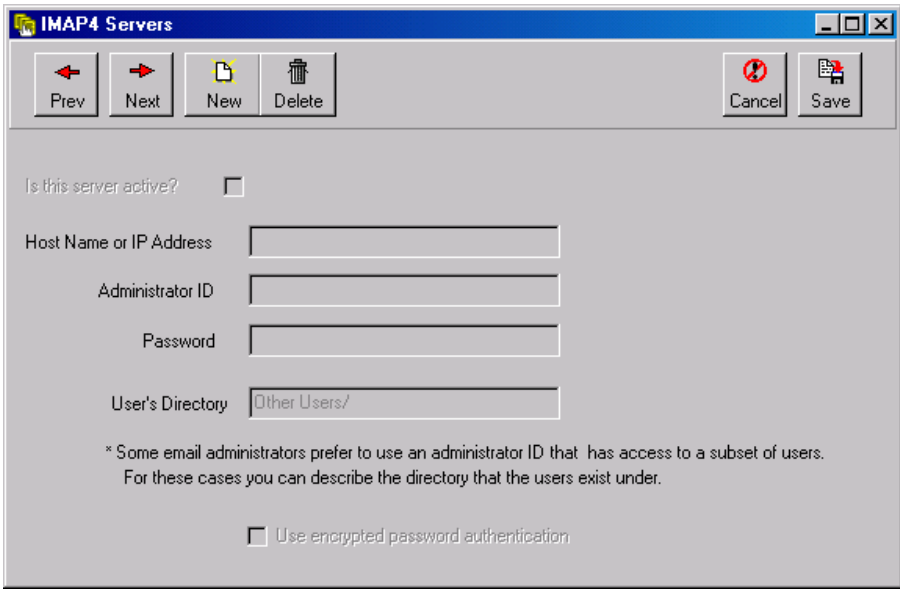
Indicate the IP address assigned to the e-mail server that is to be used to send the subscriber's outgoing e-mail. If you selected the IMAP4 W/ ADMINISTRATOR ID option in the Incoming Mail Account Type field, the Host Name field will be populated with the IP address of the local host (VP system) and cannot be changed.

DOSVP:*(No such field)*
WINVP:Incoming Mail Area – Account Type *(E-mail tab)*

t When a mailbox is set up to use Single Message Store, the VP system communicates with e-mail servers via POP3 or IMAP4 technology. When TUI Browser is enabled, the VP system must use IMAP4 technology. Once you make a selection here, in the fields below this field you will instruct the VP system how to log into the mailbox owner's e-mail account on the e-mail server. Although you can select POP3, IMAP4, or IMAP4 WITH ADMINISTRATOR ID from this drop down menu, IMAP4 WITH ADMINISTRATOR ID is recommended. (The regular IMAP4 option can be thought of as "IMAP4 WITH USER'S CREDENTIALS," in other words, the VP system logs into the e-mail server with the login name and password of the individual mailbox owner, which you specify below this field on this screen.

If you select POP3 or IMAP4 in this field, the Password field (see field description below) must be updated manually each time a subscriber changes his or her e-mail login password. If it is not updated, e-mails can no longer be retrieved for the subscriber.

To circumvent the issues associated with password changes, select IMAP4 W/ ADMINISTRATOR ID in this field and set up a user with Administrator login rights on the IMAP4 e-mail server. When the VP system logs into the e-mail server with Administrative rights, it can open any e-mail account on the server, regardless of an individual account owner's specified password. Note that to use the IMAP4 W/ ADMINISTRATOR ID option in this field, you must specify how the Administrator account is set up on the e-mail server. To do so, you complete the IMAP4 SERVERS screen shown below. This screen is located in the Database Administrator under the System pull-down menu.



In the HOST NAME OR IP ADDRESS field, indicate the IP address or computer name of the e-mail server.

In the ADMINISTRATOR ID field, indicate the name of the account assigned Administrator privileges.

In the PASSWORD field, indicate the Administrator login password.

The USER'S DIRECTORY field should not adjusted unless necessary. This field is available for directory specifications in instances where IMAP4 directory traversal requires a match on this string. An Information Technology or VP system technical support professional should guide you in adjusting this field only if necessary.

You can set up multiple Administrator accounts and specify up to 32 of them on the IMAP4 SERVERS screen.

DOSVP:*(No such field)*
WINVP:Incoming Mail Area – Host Name *(E-mail tab)*

This field indicates the name assigned to the e-mail server that receives the subscriber's incoming e-mail.

DOSVP:*(No such field)*
WINVP:Incoming Mail Area – User Name *(E-mail tab)*

This field indicates the User Name the subscriber uses to log on to the e-mail server that receives the subscriber's incoming e-mail.

DOSVP:*(No such field)*
WINVP:Incoming Mail Area – Password *(E-mail tab)*

This field indicates the password the subscriber uses to log on to the e-mail server that receives the subscriber's incoming e-mail. (This field will display only if you've selected POP3 or IMAP4 in the Account Type field.)

Note: If you select POP3 or IMAP4 in the INCOMING MAIL – ACCOUNT TYPE field, the subscriber should not change his/her e-mail login password from the password you enter in the Password field unless the Password field is manually updated to reflect the change. If it is not updated, e-mails can no longer be retrieved for the subscriber.

Be particularly aware of this in an Exchange Server environment, since any time subscribers change their *network* login password in this setting, they must inform their system administrator.

This anomaly is not an issue if you select IMAP4 W/ ADMINISTRATOR ID OPTION in the INCOMING MAIL – ACCOUNT TYPE field. See the information on this field presented above.

On Windows-based VP systems, if you click on the Advanced button from the E-mail tab on the MAILBOX SETUP screen, the ADVANCED PROPERTIES screen displays. This screen is only applicable in environments where an Exchange Server e-mail server is used with the Exchange Service. Do not alter the defaults on this screen unless authorized to do so by a technical support representative.

5.5.5 RESETTING A MAILBOX

When you reset a mailbox, the VP system:

- Deletes all messages from the mailbox
- Enables the mailbox tutorial
- Deletes all personal greetings recorded in the mailbox
- Resets the password to a default password (copied from the prototype mailbox)
- Removes the mailbox from the dial-by-name directory

There are 3 ways to reset a mailbox:

- A supervisor can reset the mailbox via his/her Supervisor options.
- You can press <Ctrl-F3> and enter the number of the mailbox to be reset.
- If the VP system is integrated with a hotel/motel PMS system, the PMS informs the mailbox that a new guest is checking into the room.

5.5.6 USING THE DEMO MAILBOX 9993

Demo mailbox 9993 functions like other mailboxes, but it does not store messages. As soon as a caller leaves a message in this mailbox, the message is played back to the caller. This feature allows users to experience a demonstration of the VP system's recording capabilities. It can also be used as a training device. For example, the greeting in the demo mailbox 9993 may be recorded as:
"Please record a short message after the tone, and press any key to hear it played back to you."

After the message has been re-played to the caller, the VP system takes whatever action is specified in the MAILBOX screen AFTER LEAVING MESSAGE field (DOSVP systems) / AFTER RECORDING MESSAGE field (WINVP systems).Note that the VP system does not play the normal prompt *("Please speak after the tone")* prior to recording the caller's test message. This is to allow more flexibility in setting up the greeting.

5.6 Setting up a Question Box

5.6.1 WHAT DOES A QUESTION BOX DO?

When a caller is routed to a Question box, the VP system plays the box greeting (if one is recorded). After playing the greeting, the VP system begins asking questions and storing the answers, which can be either verbal or keypress. The sequence of actions in a Question box is summarized in Figure 5-2 Sequence of Actions in a Question Box.

Note that for simplicity, some actions, such as owner notification, have been omitted from the chart.

Note:	When a Question box is set up to collect keypress responses, the data is stored in a file, which can then be processed by other third-party software packages. Keypress answers can also be sent to a printer at the conclusion of each set of questions. See section 7.19 for more information on using the Question box data entry features.

The VP system can prompt callers with up to 10 questions per box. It asks each question in turn and stores the answer, until it reaches either a question that has not been recorded or question number 10. The VP system then plays system prompt 100, *"Thank you for answering our questions,"* and it takes whatever action is specified in the field AFTER QUESTIONS on the QUESTION BOX screen. You can re-record this prompt if necessary to meet the requirements of a particular application.

You can record the greetings and questions for the Question box either from the PC, as you complete the Question Box screen, or by calling in as a Supervisor (see section 7.11).

When the owner of the Question box logs into his/her mailbox, he/she is told by the VP system how many messages and Question box answers are in the mailbox. If the mailbox owns at least one Question box, an extra option (Option 4 - Listen to Question box answers) is included in the main menu voiced to the mailbox owner.

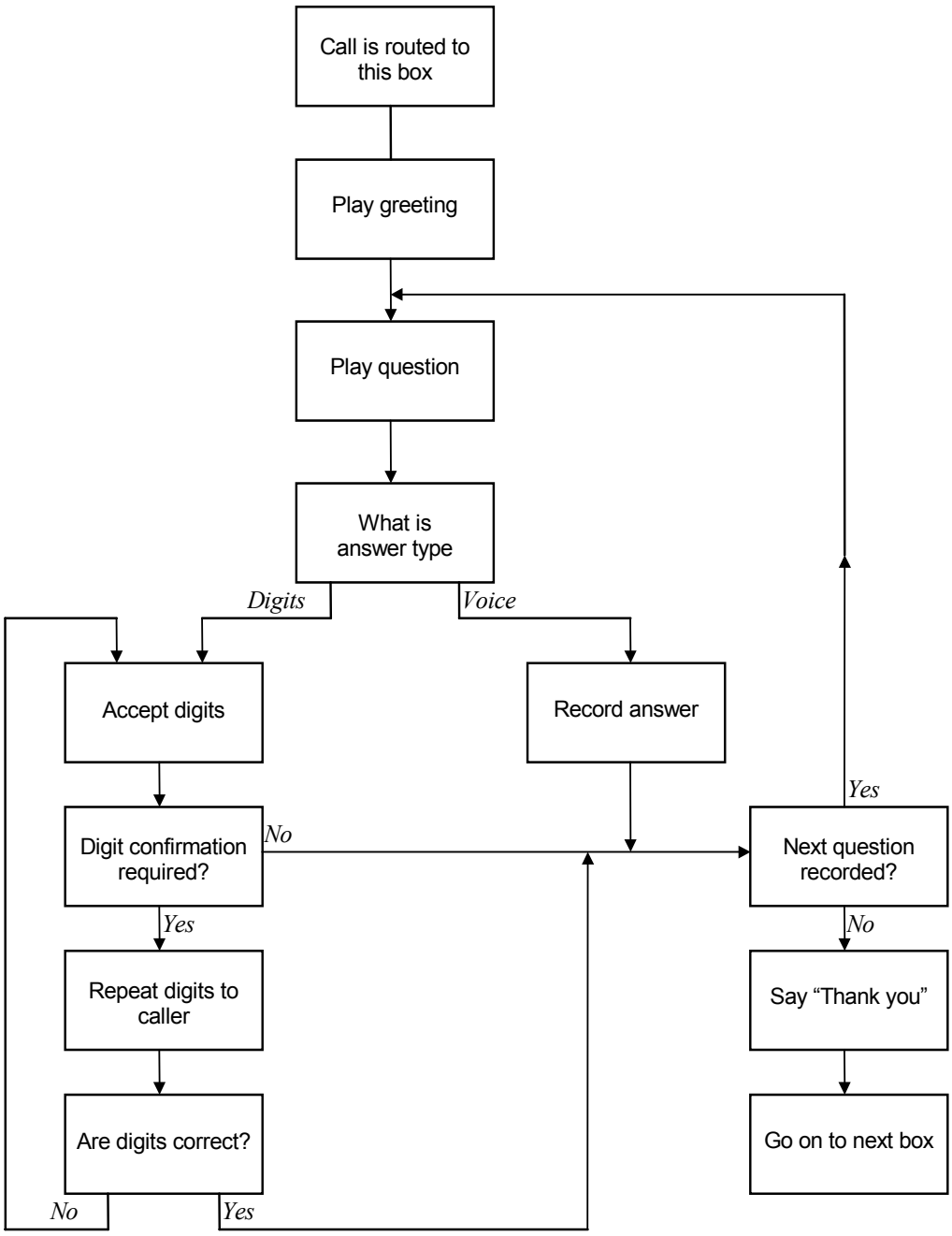
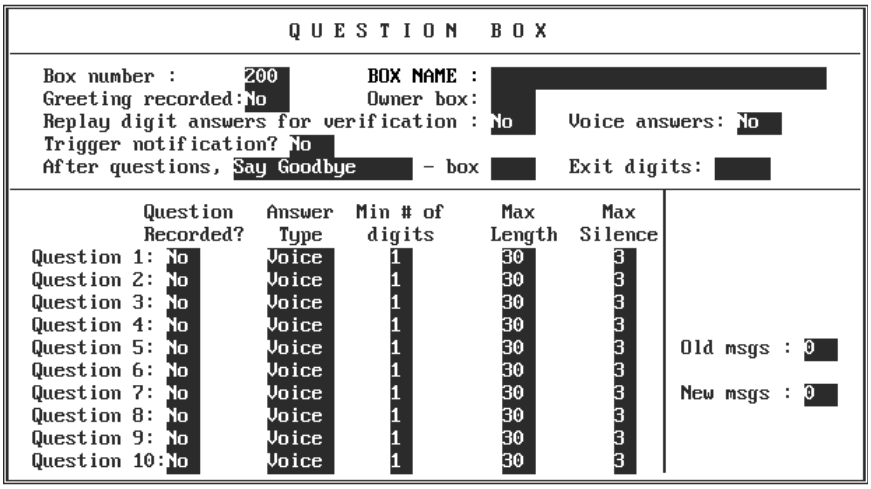


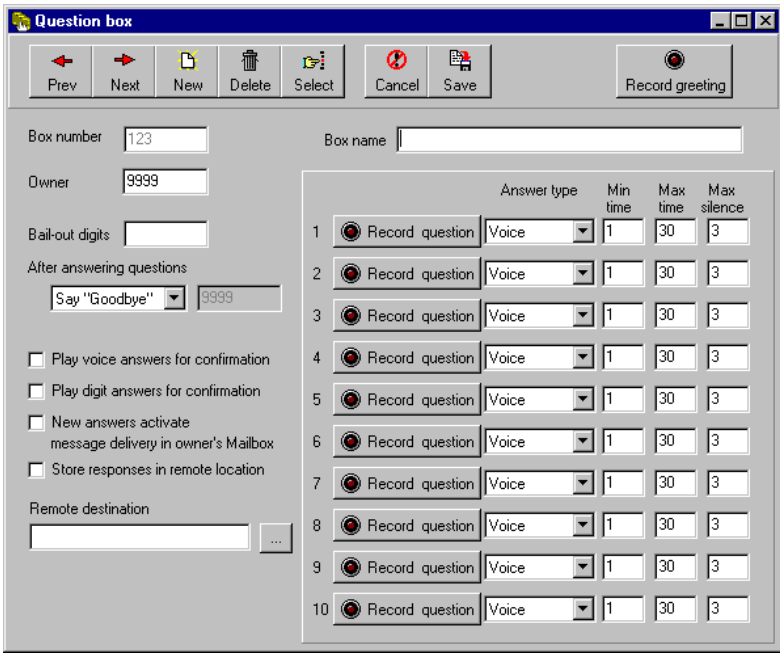
Figure 5-2 Sequence of Actions in a Question Box

5.6.2 QUESTION BOX SCREENS

DOS-based VP System Question Box Screen


QUESTION BOX
Box number : 200
BOX NAME :
Greeting recorded: No
Owner box:
Replay digit answers for verification : No
Voice answers: No
Trigger notification? No
After questions, Say Goodbye - box
Exit digits:
Question Recorded? Answer Type Min # of digits Max Length Max Silence
Question 1: No Voice 1 30 3
Question 2: No Voice 1 30 3
Question 3: No Voice 1 30 3
Question 4: No Voice 1 30 3
Question 5: No Voice 1 30 3
Question 6: No Voice 1 30 3
Question 7: No Voice 1 30 3
Question 8: No Voice 1 30 3
Question 9: No Voice 1 30 3
Question 10: No Voice 1 30 3
Old msgs : 0
New msgs : 0

Windows-based VP System Question Box Screen



5.6.3 QUESTION BOX FIELD DESCRIPTIONS

Be advised that due to differences in the screen design between DOS-based and Windows-based VP systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

Fields used in DOS-based VP systems are prefaced below with **DOSVP**, and fields used in Windows-based VP systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

Several field descriptions discuss setting fields to YES or NO settings. In Windows-based VP systems, this equates to checking or un-checking the field's checkbox, which you do by clicking on it.

DOSVP:Box Number
WINVP:Box Number

This field displays the Question box number. On DOS-based systems, a box number can be any number between 1 and 9969 (boxes 9970 – 9999 and 0 are reserved for the system). You cannot change the box number on the screen. To view a new box, use keys <F4> (select a box number), <F5> (previous Question box), or <F6> (next Question box). To add a new Question box, press <F2> (add).

On Windows-based VP systems, a box number can be up to 9 digits between 1 and 999999999 (except boxes 9970 – 9999 and 0, which are reserved for the system.) Windows-based VP system users can create and view Question boxes by selecting from icons at the top of the screen.

DOSVP:Box Name
WINVP:Box Name

This field contains the name assigned to the Question box. The name appears on the database listing and is used for record keeping. If you insert the **@** symbol in front of the name ("Interview questions" becomes "@Interview questions"), you instruct the VP system to treat the Question box as a "data entry" box. See section 7.19.

DOSVP:Greeting Recorded
WINVP:Record Greeting button

This field identifies whether a greeting has been recorded for the Question box. On Windows-based VP systems, an existing recording is signified by a red light displaying on the button.

The greeting is played as soon as a caller is routed to the Question box.

On DOS-based VP systems, when you bring the cursor into this field, a menu appears, offering the option to play, delete, copy, or record the greeting. By selecting RECORD you can record the greeting via a telephone line connected to the voice processing board. To record the greeting, select RECORD, press <Enter>, and call into voice mail line 1. When voice mail answers, select RECORD and speak the greeting. To end the recording, press <Enter> again. To hear the recording, select PLAY.

On Windows-based VP systems, you can record the greeting by clicking on the Record Greeting button, then using the controls on the Sound Recorder dialog box. At the lower right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

DOSVP:Owner Box
WINVP:Owner

This field contains the mailbox number of the owner of the Question box. The owner is the only person who can listen to responses left in the Question box.

DOSVP:Replay Digit Answers for Verification
WINVP:Play Digit Answers for Confirmation

For each question, the VP system can accept one of two types of answers, voice or digits, as explained below. If you are collecting digit answers (dialed via the keypad), set this field to YES to have the VP system repeat the digits to the caller. The caller can then indicate whether or not the digits were entered correctly, and if not, enter them again.

DOSVP:Replay Voice Answers for Verification
WINVP:Play Voice Answers for Confirmation

For each question, the VP system can accept one of two types of answer, voice or digits, as explained below. If you are collecting voice answers, set this field to YES to have the VP system replay the recorded answer to the caller. The caller can then review and, if necessary, re-record the answer. If this field is set to YES, the VP system prompts:

"If you would like to review your answer, press 1. Or to move on, press 2."

If the caller presses 1, the VP system prompts:

"The answer is currently recorded as [plays answer here] ... If this is correct, press 1, if not, press #."

If the caller presses #, the VP system plays the question again and allows the caller to re-record the answer. If the caller presses any other digit or presses no digit, the VP system moves on to the next question.

DOSVP:Trigger Notification
WINVP:New Answers Activate Message Delivery in Owner's Mailbox

If this field is set to YES (enabled), the VP system leaves a short message in the Question box owner's mailbox: *"You have new questionnaire answers."* This message triggers all of the normal mailbox notification functions (message waiting lamps, pagers, etc.).

If this field is set to NO (not enabled), Question box answers do not trigger notification functions in the Question box owner's mailbox. The owner is informed that there are new questionnaire answers each time he/she logs into his/her mailbox.

DOSVP:*(No such field)*
WINVP:Store Responses in Remote Location

If this field is set to YES (enabled), the VP system will store Question box responses outside the VP system in the location specified in the REMOTE DESTINATION field. (By storing responses in a remote location, you can bypass the limit of 250 messages per Mailbox.) With this field enabled, the Question box owner is disregarded, and new Question box answers will not activate message delivery in the owner's mailbox.

If this field is set to NO (not enabled), Question box answers will be stored by default in the \M directory of the VP system.

DOSVP:*(No such field)*
WINVP:Remote Destination

If you opt to store Question box answers in a remote location (see STORE RESPONSES IN REMOTE LOCATION field description), this field specifies the path of that location. Use the Browse box to locate the location to store Question box answers. The answers for each Question box will be stored in a folder created by the VP system. The folder name format is:

QuestionBox_[Question box #]

The answer file for each Question box session will have the following filename format:

Qbox[box#]List[session#].m3u

For example, the filename Qbox123List11.m3u indicates that this file contains the answers to session 11 in Question box 123. Answer files containing voice that are stored in a remote location can be played using Microsoft Media Player or any MP3 player.

Note:	If you choose to store Question box answers in remote locations, you cannot use QBOX configuration file options (section 12).

DOSVP:Exit Digits
WINVP:Bail-out Digits

This field is active only if the ANSWER TYPE field is set to DIGITS. Enter a range of 1 to 5 digits that are to terminate the question sequence. (You must inform callers of the exit digits in the prompt you record for the Question box.) If the caller presses the exit digit(s), the VP system takes whatever action is specified in the AFTER QUESTIONS field. Any answers the caller has entered up to this point are stored. If, for example, 10 questions are recorded, the caller may choose to answer only the first five questions, then press the exit digit(s) to route the call on to the next box.

Note:	Although any digit 0 – 9 and the characters * and # can be used as exit digits, it is recommended you do not use a single # as the exit digit. The VP system treats the # as an “end of dialing” digit that allows frequent callers to speed up the process of the call. A caller may press # to simply speed the flow of questions and instead unintentionally exit the question sequence.

DOSVP:After Questions
WINVP:After Answering Questions

After the VP system asks all the questions and records the answers, or the caller has pressed the exit digit sequence, the VP system plays a thank-you message (system prompt 100) and looks at this field to determine what to do with the call. The options are:

Option	Action Indicated
go to box	Allows the call to route to another box. The new box number is entered in the next field.
say goodbye	The VP system says, "*Good-bye,"* then hangs up.
return	The VP system goes back to the previous box that handled this call (usually a Routing box).
hang up	The VP system immediately terminates the call by going on hook.

DOSVP:Box
WINVP:(Unlabeled Box field)

This field is valid only if the option GO TO BOX was selected in the corresponding field. This field contains the box number to which the call is to be routed after all the questions are answered.

DOSVP:Question Recorded
WINVP:Record Question button

This field identifies whether a question has been recorded. On Windows-based VP systems, an existing recording is signified by a red light displaying on the button.

On DOS-based systems, when you bring the cursor into this field, a menu appears, offering the option to play, delete, copy, or record the question. By selecting RECORD you can record the question via a telephone line connected to the voice processing board. To record the question, select RECORD, press <Enter>, and call into voice mail line 1. When voice mail answers, select RECORD and speak the question. To end the recording, press <Enter> again. To hear the recording, select PLAY.

On Windows-based VP systems, you can record the question by clicking on the Record Question button, then using the controls on the Sound Recorder dialog box. At the lower right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

The VP system prompts callers with each recorded question until it encounters a question that has not been recorded.

DOSVP:Answer Type
WINVP:Answer Type

Each question can be set up to collect either a voice or keypress response. If you select VOICE in this field, the VP system records the response spoken by the caller and stores it as a voice file. If you select DIGITS in this field, the VP system stores the digits entered by the caller in response to the question and reads these digits to the box owner when he/she listens to the responses.

DOSVP:Min # of Digits
WINVP:Min Time

If the ANSWER TYPE field is set to DIGITS, this field specifies the minimum number of digits the caller must enter for the response to be considered valid. If the caller enters fewer digits than specified, the VP system says, "*You entered an invalid number of digits,*" and asks the question again, up to 3 times.

DOSVP:Max Length
WINVP:Max Time

If the ANSWER TYPE field is set to DIGITS, this field specifies the maximum number of digits the caller can enter for the response to be considered valid. If the caller enters more digits than specified here, the VP system says, "*You entered an invalid number of digits,*" and asks the question again, up to 3 times.

Note:	If the caller enters not less than the minimum number of digits specified in the MIN # OF DIGITS field and not more than the maximum number indicated in the MAX LENGTH field, the VP system records the digits at the expiration of the Max Silence timer. The caller may also press # to indicate that he/she has finished dialing.

If the ANSWER TYPE field is set to VOICE, this field specifies the maximum number of seconds of recording time the VP system allows the caller to answer this question.

DOSVP:Max Silence
WINVP:Max Silence

If the ANSWER TYPE field is set to DIGITS, this field instructs the VP system how long it is to wait (in seconds) after a digit has been received before determining the caller has finished dialing.

If the ANSWER TYPE field is set to VOICE, this field instructs the VP system how many seconds of silence it is to detect before determining the caller has finished speaking.

DOSVP:New Msgs
WINVP:*(No such field)*

This field cannot be changed from the keyboard. It indicates the number of new messages in the Question box. A message is new if the Question box owner has not yet listened to it. Once the owner has listened to the message, it becomes an old message. Each Question box can hold up to 200 messages.

DOSVP:Old Msgs
WINVP:*(No such field)*

This field cannot be changed from the keyboard. It indicates the number of old messages in the Question box. A message is new if the Question box owner has not yet listened to it. Once the owner has listened to the message, it becomes an old message. Each Question box can hold up to 200 messages.

5.7 Setting up a Routing Box

5.7.1 WHAT DOES A ROUTING BOX DO?

The Routing box serves as the mechanism for sending (*routing*) calls to boxes throughout the VP system. Typically, Routing boxes are set up to play an announcement (greeting) to callers that prompts them to select a choice from a voice-menu. For example:

"You have reached our service department. If you are calling to inquire about the status of a repair, please press 1. For all other inquiries, please press 2. If you need assistance, please press 3."

You can also set up Routing boxes to route calls based on certain criteria, such as the time of day or day of week on which the call is received, the order in which the call is received, or based on a database lookup match. All of these routing options are discussed in this section.

When a call is sent to the Routing box, the VP system plays the greeting recorded for the box. It then consults the ROUTING TYPE field indicated on the Routing box screen and routes the call based on the type indicated. The sequence of actions within a Routing box is summarized in Figure 5-3. (This chart has been simplified and does not list all possible options.)

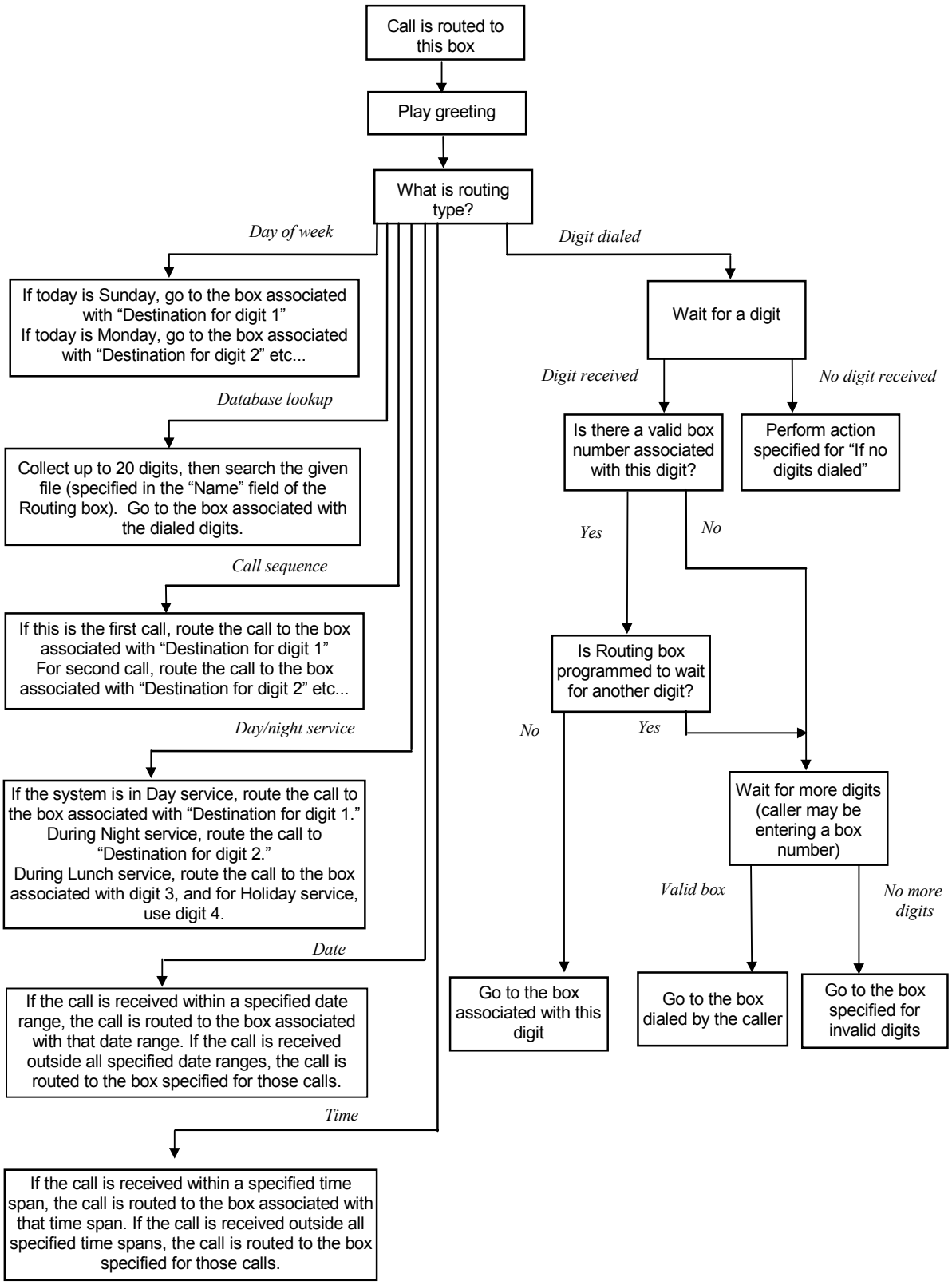

Call is routed to this box
Play greeting
What is routing type?
Day of week
If today is Sunday, go to the box associated with "Destination for digit 1"
If today is Monday, go to the box associated with "Destination for digit 2" etc...
Database lookup
Collect up to 20 digits, then search the given file (specified in the "Name" field of the Routing box). Go to the box associated with the dialed digits.
Call sequence
If this is the first call, route the call to the box associated with "Destination for digit 1"
For second call, route the call to the box associated with "Destination for digit 2" etc...
Day/night service
If the system is in Day service, route the call to the box associated with "Destination for digit 1."
During Night service, route the call to "Destination for digit 2."
During Lunch service, route the call to the box associated with digit 3, and for Holiday service, use digit 4.
Date
If the call is received within a specified date range, the call is routed to the box associated with that date range. If the call is received outside all specified date ranges, the call is routed to the box specified for those calls.
Time
If the call is received within a specified time span, the call is routed to the box associated with that time span. If the call is received outside all specified time spans, the call is routed to the box specified for those calls.
Digit dialed
Wait for a digit
Digit received
No digit received
Is there a valid box number associated with this digit?
Perform action specified for "If no digits dialed"
Yes
No
Is Routing box programmed to wait for another digit?
No
Yes
Wait for more digits (caller may be entering a box number)
Valid box
No more digits
Go to the box associated with this digit
Go to the box dialed by the caller
Go to the box specified for invalid digits

Figure 5-3 Sequence of Actions within a Routing Box

5.7.2 UNDERSTANDING ROUTING BOX 800, 801, AND 821

As discussed in section 1 the VP system contains a default database with a setup configuration that allows the system to perform fundamental call processing tasks efficiently with minimal system adjustments by the installing technician. This default database configuration includes 2 pre-defined classes of service (0 and 7), 1 supervisor mailbox (mailbox 70), and 3 Routing boxes—800, 801, 821.

By default, entries specified on the LINE INFORMATION screen set up the VP system to route all incoming calls to Routing box 800. This box answers calls during the day and lunch service hours and plays a greeting to callers. After day/lunch service hours, the system routes calls to Routing box 801. Typically, companies offer more extensive call routing options to callers during day/lunch service hours than during closed hours. Often, for example, single-digit call routing (*"...Press 2 for Sales..."*) is not offered during closed hours. Therefore, the greeting voiced by and options available in Routing box 801 are often different than those in Routing box 800.

Routing Box 821 is designed by default to take over and route calls once they have passed through Routing box 800 or 801. A call may go to Routing box 821, for example, after the caller leaves a voice message in a subscriber's mailbox. Routing box 821 offers callers a menu similar to Routing box 800, but box 821 is pre-configured so if a caller does not enter an extension or select a menu option, the call is disconnected. In Routing box 800 and 801, callers who do not enter an extension or select an option are transferred to the operator. This is a safety measure designed to assist callers who use rotary phones or are too slow to respond to system prompts. By disconnecting non-responsive callers in box 821, the system simply assumes that the caller knew how to select menu options in box 800 or 801, and therefore, since no option was selected in box 821, the caller hung up.

5.7.3 SPECIFYING ROUTING BOX OWNERS

When a mailbox is designated as the owner of a Routing box, two parameters of the owner mailbox's class of service apply to the Routing box:

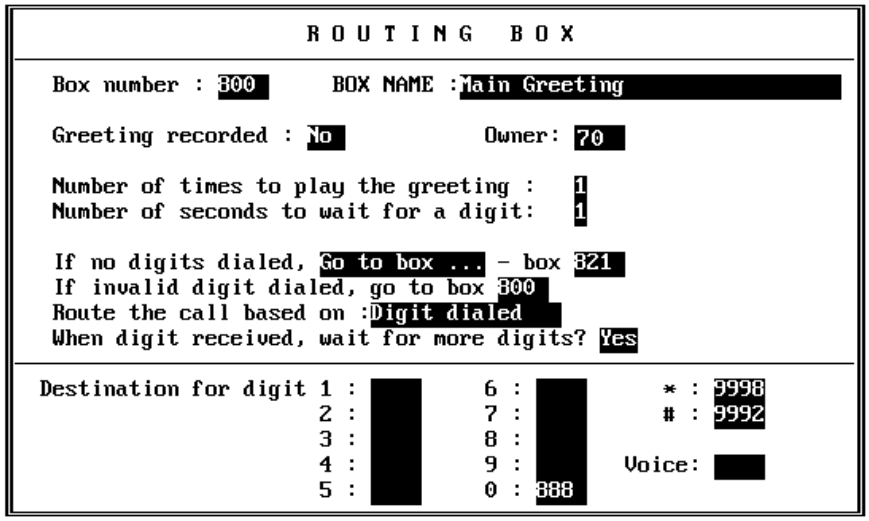
The maximum number of greetings. The owner mailbox must be allowed at least one greeting.

The maximum greeting length.

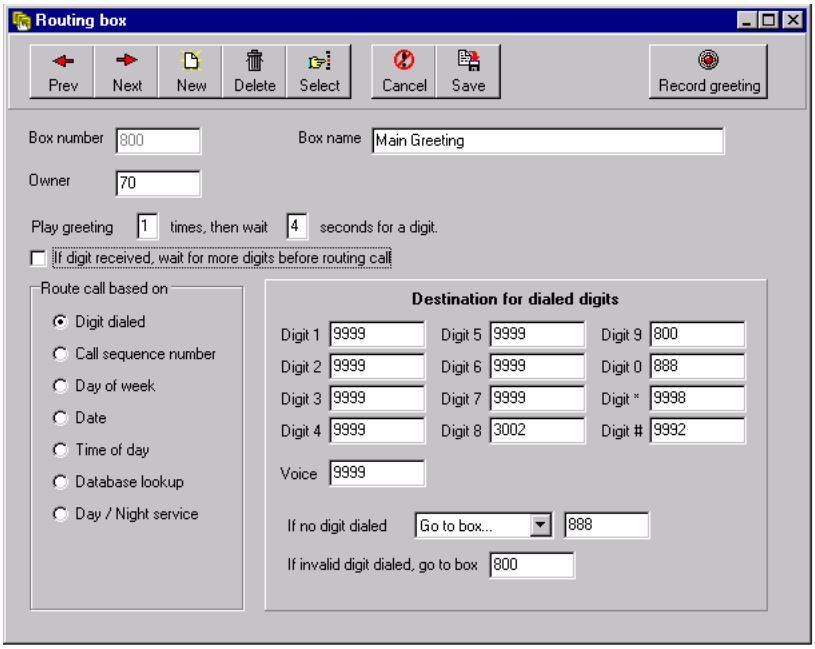
Owners of Routing boxes can remotely re-record the Routing box greeting or change the active greeting remotely from any telephone. To do so, the owner must first log into his/her mailbox then select option 3—Options menu from the main menu. The owner then selects option 2—change greeting, and follows the prompts to change the greeting in the Routing box(s) he/she owns.

5.7.4 ROUTING BOX SCREENS

DOS-based VP System Routing Box Screen


R O U T I N G B O X
Box number : 800
BOX NAME : Main Greeting
Greeting recorded : No
Owner: 70
Number of times to play the greeting : 1
Number of seconds to wait for a digit: 1
If no digits dialed, Go to box ... - box 821
If invalid digit dialed, go to box 800
Route the call based on : Digit dialed
When digit received, wait for more digits? Yes
Destination for digit 1 :
2 :
3 :
4 :
5 :
6 :
7 :
8 :
9 :
0 : 888
* : 9998
# : 9992
Voice:

Windows-based VP System Routing Box Screen



5.7.5 ROUTING BOX SCREEN FIELD DESCRIPTIONS

Be advised that due to differences in the screen design between DOS-based and Windows-based VP systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

Fields used in DOS-based VP systems are prefaced below with **DOSVP**, and fields used in Windows-based VP systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

Several field descriptions discuss setting fields to YES or NO settings. In Windows-based VP systems, this equates to checking or un-checking the field's checkbox, which you do by clicking on it.

DOSVP:Box Number
WINVP:Box Number

This field displays the Routing box number. A box number can be any number between 1 and 9969 (boxes 9970 – 9999 and 0 are reserved for the system). You cannot change the box number on the screen. To view a new box, use keys <F4> (select a box number), <F5> (previous Routing box), or <F6> (next Routing box). To add a new Routing box, press <F2> (add).

On Windows-based VP systems, a box number can be up to 9 digits between 1 and 999999999 (except boxes 9970 – 9999 and 0, which are reserved for the system.) Windows-based VP system users can create and view Routing boxes by selecting from icons at the top of the screen.

DOSVP:Box Name
WINVP:Box Name

This field contains the name assigned to the Routing box. The name appears on the database listing and is used for record keeping.

If you want the VP system to announce the current time after it plays the Routing box greeting, insert the word TIME inside brackets before the box name (for example, if the box name is NEW PRODUCTS, change it to [TIME]NEW PRODUCTS). If you want the VP system to play the current date, insert [DATE] before the box name. A single Routing box can play the time or the date, but not both. By connecting two Routing boxes together, however, you can play both the time and the date to the caller.

DOSVP:Greeting Recorded
WINVP:Record Greeting button

This field identifies whether a greeting has been recorded for the Routing box. On Windows-based VP systems, an existing recording is signified by a red light displaying on the button.

The greeting is played as soon as a caller is routed to the Routing box.

On DOS-based VP systems, when you bring the cursor into this field, a menu appears, offering the option to play, delete, copy, or record the greeting. By selecting RECORD you can record the greeting via a telephone line connected to the voice processing board. To record the greeting, select RECORD, press <Enter>, and call into voice mail line 1. When voice mail answers, select RECORD and speak the greeting. To end the recording, press <Enter> again. To hear the recording, select PLAY.

On Windows-based VP systems, you can record the greeting by clicking on the Record Greeting button, then using the controls on the Sound Recorder dialog box. At the lower right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

The greeting can also be recorded remotely by the owner of the Routing box. Note that once a Routing box has been assigned an owner, the Routing box is allowed the same number of greetings as the owner mailbox, as defined in the mailbox's assigned class of service. The greetings are numbered 0 - 9.

Once the VP system has finished playing the greeting, it may optionally play the time or date, depending on the contents of the BOX NAME field (see above).

DOSVP:Owner
WINVP:Owner

This field contains the mailbox number of the owner of the Routing box. The owner has the ability to call in to the system to re-record the Routing box greeting or select a different active greeting. If you do not want to provide this remote administration option, or if not more than 1 greeting is required for the Routing box, leave this field blank.

DOSVP:Number of Times to Play Greeting
WINVP:Play Greeting X Times

While the VP system is playing the greeting for the Routing box, it is also listening for the caller to enter a digit. If the VP system gets to the end of the greeting without detecting a digit from the caller, it waits the amount of time specified in the NUMBER OF SECONDS TO WAIT FOR A DIGIT field (DOSVP systems) / WAIT X SECONDS FOR A DIGIT field (WINVP systems). If no digits are detected before this time has elapsed, the system repeats the Routing box greeting the number of times specified here.

DOSVP:Number of Seconds to Wait For a Digit
WINVP:Wait X Seconds for a Digit

This value represents the number of seconds the VP system waits to detect the first digit from the caller. Once the first digit has been received, the system either waits for additional digits or immediately routes the call based on the other fields in the Routing box.

DOSVP:If No Digits Dialed
WINVP:If No Digits Dialed

If no digits are received after the VP system plays the greeting the specified number of times and waits the specified number of seconds, the system takes whatever action is specified in this field. The options are:

Option	Action Indicated
go to box	Allows the call to route to another box. The new box number is entered in the next field.
say goodbye	The VP system says, "*Good-bye,"* then hangs up.
return	The VP system goes back to the previous box that handled this call (usually a Routing box).
hang up	The VP system immediately terminates the call by going on-hook.

Note: Remember that the absence of a digit may mean that the caller has hung up. If your telephone system does not offer consistent and reliable disconnect supervision, do not instruct the VP system to go back to this same box if no digits are dialed; otherwise it might stay in this box continually and not disconnect the call.

For example, depending on how you record the greeting in the Routing box you may set up the VP system using one of the following techniques:

Select GO TO BOX and send the caller to another Routing box with a greeting containing additional instructions, or that simply prompts:

"Press 1 if you would like to continue."

If a digit 1 is not detected in response to this prompt, it can safely be assumed that the caller has hung up. See section 17 for more information on how the VP system determines that the caller has disconnected.

If the system has the potential of receiving calls from rotary dial telephones, select GO TO BOX and enter mailbox number of the person assigned to handle these calls. Be aware, however, that lack of disconnect supervision may cause many "hang-up" calls to be routed to this box. Also see DESTINATION FOR VOICE later in this section for other options pertaining to rotary dial callers.

DOSVP:Box
WINVP:(Unlabeled Box field)

This field is valid only if the option GO TO BOX is selected in the corresponding field. This field contains the box number to which the call is to be routed if no digits are received during the Routing box greeting.

DOSVP:If Invalid Digit Dialed, Go To Box
WINVP:If Invalid Digit Dialed, Go To Box

If the caller enters an invalid digit, the VP system voices the prompt, *"That was not a valid entry,"* and goes to the box specified in this field. By default, the system re-plays the same Routing box greeting. You may choose to specify another Routing box that offers similar options, but provides additional helpful information to the caller.

The invalid digit dialed field is only used if the routing is set up based on DIGIT DIALED, and either:

The caller dials a single digit, but the DESTINATION FOR DIGIT field is blank for that digit.

The caller dials a sequence of digits, but there is no box number corresponding to the dialed digits.

DOSVP:Route Call Based On
WINVP:Route Call Based On area

There are 5 techniques you can use to route calls on DOS-based VP systems:

- Based on the digit(s) dialed by the caller
- Based on the call's sequence number (first call goes to box [number], second call goes to box [number], etc.)
- Based on the day-of-week the call is received (for example, Sunday, Monday, etc.)
- Based on the results of a database lookup
- Based on whether the VP system is in Day Service, Lunch Service, or Night Service mode or the call is received on a defined holiday

On Windows-based VP systems, you can route calls based on the 5 options listed above plus:

- Based on the time of day the call is received (for example, 7:30 AM – 12:00 PM)
- Based on the date range during which the call is received (for example, 1-1-2001 – 1-31-2001)

DIGIT DIALED

While the VP system is playing the Routing box greeting, callers can press a key at any time to make a selection from the menu, or they can dial a mailbox directly. When the caller presses a key, the VP system immediately stops playing the greeting and processes the dialed digit.

If the caller does not dial a digit and the end of the greeting is reached, the VP system pauses to wait for a response, then, if no response (DTMF or spoken word) is detected, the system performs whatever action is specified in the field IF NO DIGITS DIALED.

If a digit is dialed, the VP system checks the field DIGIT RECEIVED, WAIT FOR MORE DIGITS:

*If this field is set to NO, the VP system immediately attempts to route the call based on the single digit dialed. If the DESTINATION FOR DIGIT field contains a valid box number, the call is immediately sent to the new box. This means that menu selections take priority over extension numbers (for example, if the DESTINATION FOR DIGIT 1 is a valid box, the caller cannot dial mailboxes beginning with a 1, as the VP system routes the call as soon as it received the first **1** in the extension number).

*If this field is set to YES, the VP system waits to see if the caller is dialing a sequence of digits (for example, entering a box number). If additional digits are detected, and they correspond to a valid mailbox, Routing box, etc., the call is routed to that box. If only one digit is detected, the VP system consults the DESTINATION FOR DIGIT fields and routes the call to the box specified. Since the VP system must wait for additional digits, call routing is not executed as quickly as when this field is set to NO.

CALL SEQUENCE NUMBER

The VP system plays the Routing box greeting. Once the greeting ends, the call immediately routes to the box specified in one of the digit destination fields, in numerical order. On non-Windows-based VP systems, the first call to the Routing box goes to the box specified in the field DESTINATION FOR DIGIT 1. The second call goes to the box specified in the field DESTINATION FOR DIGIT 2, etc. When the VP system reaches digit 0 (or encounters a digit for which no box is specified), it repeats the cycle starting with digit 1.

Call Number	Box to Which Call Will Be Routed
First call to this box	Box specified in DESTINATION FOR DIGIT 1 field
Second call to this box	Box specified in DESTINATION FOR DIGIT 2 field
Third call to this box	Box specified in DESTINATION FOR DIGIT 3 field
Fourth call to this box	Box specified in DESTINATION FOR DIGIT 4 field
Fifth call to this box	Box specified in DESTINATION FOR DIGIT 5 field
etc.	etc.

If the caller dials any digit while the Routing box greeting is playing, the VP system stops the greeting and routes the call based on call number (not based on the digit dialed).

DAY-OF-WEEK

The VP system plays the Routing box greeting. Once the greeting ends, the call immediately routes to the box specified in one of the digit destination fields. On Windows-based VP systems, routing is as indicated on the Routing box screen. On non-Windows-based VP systems, routing is as follows:

Day on Which Call is Received	Box to Which Call is Routed
Sunday	Box specified in DESTINATION FOR DIGIT 1 field
Monday	Box specified in DESTINATION FOR DIGIT 2 field
Tuesday	Box specified in DESTINATION FOR DIGIT 3 field
Wednesday	Box specified in DESTINATION FOR DIGIT 4 field
Thursday	Box specified in DESTINATION FOR DIGIT 5 field
Friday	Box specified in DESTINATION FOR DIGIT 6 field
Saturday	Box specified in DESTINATION FOR DIGIT 7 field

If the caller dials any digit while the Routing box greeting is playing, the VP system stops the greeting and routes the call based on the day (not based on the digit dialed).

date

This option is on Windows-based VP systems only. The VP system plays the Routing box greeting. Once the greeting ends, the call immediately routes to the box specified in the Go to Box field that corresponds with the date range during which the call has been received. You can specify up to 6 date ranges, the box to which calls should be routed for each date range, and whether each date range

should be treated as Day Service, Night Service, Lunch Service, or Holiday Service. (If you select the default NO CHANGE in the Treat As field, the VP system's service mode will be determined by those defined on the Business Hours screen.) You can also specify a box to which calls should be routed if they are received during a date range that is not specified.

time of day

This option is on Windows-based VP systems only. The VP system plays the Routing box greeting. Once the greeting ends, the call immediately routes to the box specified in the Go to Box field that corresponds with the span of time during which the call has been received. You can specify up to 6 time spans, the box to which calls should be routed for each time span, and whether each time span should be treated as Day Service, Night Service, Lunch Service, or Holiday Service. (If you select the default NO CHANGE in the Treat As field, the VP system's service mode will be determined by those defined on the Business Hours screen.) You can also specify a box to which calls should be routed if they are received during a time span that is not specified.

DATABASE LOOKUP

The VP system has the ability to accept up to 20 digits from the caller and use these to look up a database entry. The system converts these digits to a box number, based on the contents of the database. The VP system then routes the call to that box. See section 7.15 for more information on using the database-lookup feature.

DAY/NIGHT SERVICE

The VP system plays the Routing box greeting. Once the greeting ends, the call immediately routes to the box specified in one of the digit destination fields, based on the VP system's current service mode. On non-Windows-based VP systems, if the VP system is in Day Service mode, the call routes to the box associated with DESTINATION FOR DIGIT 1. During Night Service mode, the call routes to the box associated with DESTINATION FOR DIGIT 2, etc., as shown in the table below.

Service Mode	Box to Which Call is Routed
DAY SERVICE	Box specified in DESTINATION FOR DIGIT 1 field
NIGHT SERVICE	Box specified in DESTINATION FOR DIGIT 2 field
LUNCH SERVICE	Box specified in DESTINATION FOR DIGIT 3 field
HOLIDAY SERVICE	Box specified in DESTINATION FOR DIGIT 4 field

If the caller dials any digit while the Routing box greeting is playing, the VP system stops the greeting and routes the call based on the service mode (not based on the digit dialed).

DOSVP:When Digit Received, Wait for More Digits
WINVP:If Digit Received, Wait for More Digits

This parameter is used only if the ROUTE CALL BASED ON field specifies DIGITS DIALED. If there are conflicts between menu digits in the DESTINATION FOR DIGIT fields, set this field to YES.

For example, if you used digit 1 as a menu digit in the Routing box (*"For Sales, press 1"*) and there are also mailboxes that begin with the digit 1 (100, 101, etc.), you must set this field to YES to instruct the VP system to pause after a caller dials a 1 to determine whether the caller is dialing additional digits.

To speed call processing in the VP system, it is best to avoid such digit conflicts. Therefore, if mailboxes are in a range such as 100 - 299, use only digits 3 - 9, 0, and characters * and # as Routing box destination digits (*"For Sales, press 3*"). You can then enter NO in this field. The VP system can immediately route any single-digit entries for which it finds a match in any DESTINATION FOR DIGIT field. If there is no box specified in the DESTINATION FOR DIGIT field, the VP system pauses to allow additional digits.

DOSVP:Destination for Digit fields
WINVP:Destination for Digit fields

While the VP system is playing the Routing box greeting, the caller can press a key at any time to make a selection. When the caller presses a key, the VP system immediately stops playing the greeting and consults these fields to see where the call is to be routed.

Traditionally, the VP system uses the # key to allow mailbox owners to access the voice mail gateway (box 9992). Therefore, it is strongly recommended you program DESTINATION FOR DIGIT # as **9992** in *every* Routing box so mailbox owners can access the gateway at any time. Though you can program any other digit as the voice mail gateway, all user documentation is written based on you using the # key.

DOSVP:Voice
WINVP:Voice

If you leave this field blank, the operation of the Routing box is not affected. If it is set to any valid box number, when the VP system finishes playing the Routing box greeting, it continues listening for either digits or a sound on the line for the period defined in the SECONDS TO WAIT FOR A DIGIT field. If a sound is detected on the line, and that sound is not a DTMF digit, it is assumed to be voice. The VP system then routes the call to the box number specified in this field.

Note:	Even though the VP system is listening for digits while playing the greeting, voice detection is activated only after the VP system plays the greeting. The greeting should be worded to ask the caller to speak during this time. For example: *"Welcome to the XYZ Company. For our Sales department press 1. For Service press 2. If you are calling from a rotary telephone, please say the word 'Operator' now."*

5.8 Setting up a Group Box

5.8.1 WHAT DOES A GROUP BOX DO?

A Group box is the voice mail equivalent of a distribution list. (Another form of message distribution is the *personal distribution list*—see section 5.5).

If mailbox owners frequently send messages to the same group of mailboxes, you can set up a Group box to reduce the time it takes to address the message to each mailbox. A Group box contains a listing of mailbox numbers. If a mailbox owner sends a message to a Group box, the Group box automatically distributes the message to all the mailboxes listed in it.

For example, a company may create one Group box that contains the mailbox numbers of every box assigned to a department manager. If anyone in the company needs to send the same message to all department managers, the individual can simply address the message by entering the Group box number, instead of entering each department manager mailbox number individually. The Group box then distributes the message.

When a mailbox owner wants to send a message to a Group box, he/she logs into his/her mailbox, then selects the option to send the message. At the prompt, *"Please enter the box number,"* the mailbox owner enters the number of the Group box containing the mailboxes to which the message is to be sent. The VP system voices the name of the Group box and prompts the sender to confirm it is the correct Group box. For example,

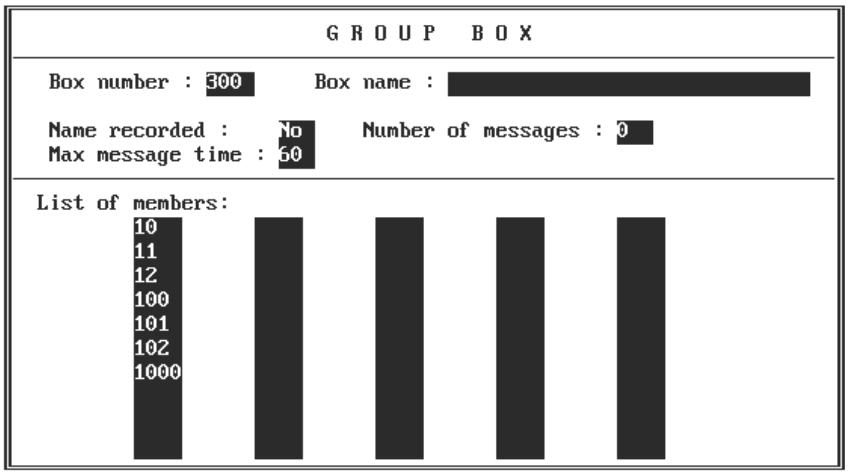
"Department managers. If this is correct, press 1."

When the sender presses 1, a tone sounds to signal the start of the recording. At the end of the message, the VP system treats the message as if it had been sent to all the department managers' mailboxes individually (it activates message notification, message waiting lamps, etc.).

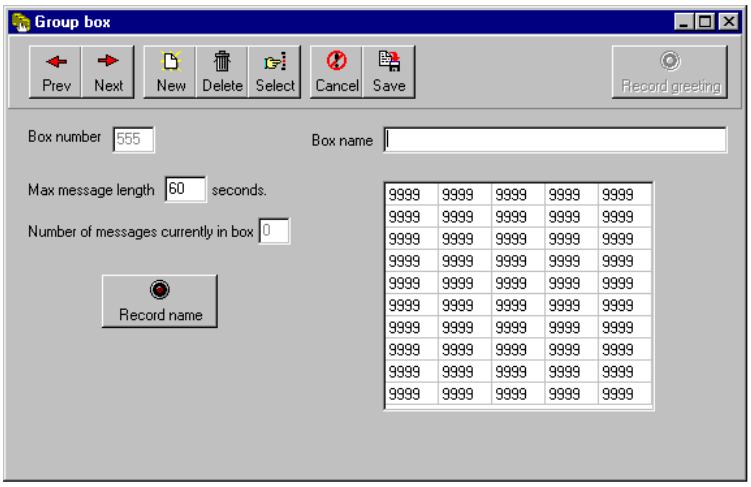
Note:	Even though it appears that each mailbox owner has his/her own copy of the message, the message is actually stored only one time on the disk. The single copy remains on the disk until all members of the group have selected to delete it.
Note:	Only mailbox owners can use Group boxes. External callers (who do not own mailboxes) cannot use them.
Note:	A Group box list *cannot* contain other Group box numbers.

5.8.2 GROUP BOX SCREENS

DOS-based VP System Group Box Screen



Windows-based VP System Group Box Screen



5.8.3 GROUP BOX FIELD DESCRIPTIONS

Be advised that due to differences in the screen design between DOS-based and Windows-based VP systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

Fields used in DOS-based VP systems are prefaced below with **DOSVP**, and fields used in Windows-based VP systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

DOSVP:Box Number
WINVP:Box Number

This field displays the Group box number. On DOS-based VP systems, a box number can be any number between 1 and 9969 (boxes 9970 – 9999 and 0 are reserved for the system). You cannot change the box number on the screen. To view a new box, use keys <F4> (select a box number), <F5> (previous Group box), or <F6> (next Group box). To add a new Group box, press <F2> (add).

On Windows-based VP systems, a box number can be up to 9 digits between 1 and 999999999 (except boxes 9970 – 9999 and 0, which are reserved for the system). Windows-based VP system users can create and view Group boxes by selecting from icons at the top of the screen.

DOSVP:Name Recorded
WINVP:Record Name button

This field identifies whether the name of the Group box has been recorded. On Windows-based VP systems, an existing recording is signified by a red light displaying on the button.

The name is played as soon as a caller selects to send a message to the Group box.

On DOS-based VP systems, when you bring the cursor into this field, a menu appears, offering the option to play, delete, copy, or record the name. By selecting RECORD you can record the name via a telephone line connected to the voice processing board. To record the name, select RECORD, press <Enter>, and call into voice mail line 1. When voice mail answers, select RECORD and speak the name. To end the recording, press <Enter> again. To hear the recording, select PLAY.

On Windows-based VP systems, you can record the name by clicking on the Record Name button, then using the controls on the Sound Recorder dialog box. At the lower right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

DOSVP:Number of Messages
WINVP:Number of Messages Currently in Box

This field cannot be changed from the keyboard. It indicates the number of messages in the Group box.

DOSVP:Max Message Time
WINVP:Max Message Length X Seconds

This field is used to specify the maximum length of a message (in seconds) that can be sent to this Group box.

DOSVP:List of Members
WINVP:(Unlabeled List of Members area)

These fields indicate the current members of the Group box. To add a mailbox to the group, enter the mailbox number on this list. To delete a mailbox from the group, move the cursor to the mailbox number to be deleted, and delete the number from the field. A Group box can contain up to 50 members.

To send messages to groups containing more than 50 mailboxes, use one of the following methods:

Use the Send to Multiple Mailboxes option to send the message to additional Group boxes. After selecting the first Group box and recording the message, press the # key for more options. From the menu that plays, choose option 6 to send the message to several mailboxes or Group boxes.

For DOS-based systems, you can also connect a Group box to a text file, which can contain an unlimited number of mailbox members. Create a text file in the system directory (by default \VM). Name the file according to the format below.

DOS-based VP systems	gboxzzxx.lst	xxis the Group box number (may be up to **4** digits) zzis the number of leading zeros necessary for an 8-character filename

For example, to create an extended member file for Group box 601 on a DOS-based VP system, create a text file named GBOX000000601.LST and list each additional mailbox on a separate line in the file (do not duplicate members in the Group box screen and the text file). Save the file you create in the \VM subdirectory on the VP system PC. In the BOX NAME field of the Group Box screen, indicate the complete path to the file, for example, C:\VM\GBOX000000601.LST.

5.9 Setting up a Directory Box

5.9.1 WHAT DOES A DIRECTORY BOX DO?

The Directory box is a unique system box. There is only one Directory box in the system (box number 9998), and it cannot be deleted. See section 7.14 for more information on the directory.

The Directory box is used to provide a directory service to callers. Calls can be routed to the Directory box from anywhere in the system (usually via a Routing box). For example, the initial Routing box on the system may voice the prompt:

“Welcome to XYZ Company. If you know your party’s extension number, you may dial it now. If you do not know your party’s extension number, press star for a company directory. Otherwise, stay on the line for a live operator.”

In this initial Routing box, the destination for digit * is then set to Directory box 9998. Once the call is routed to the Directory box, the VP system plays the recorded greeting for the Directory box. The default greeting is:

“Enter the first three letters of the last name of the party you wish to speak with. Use the 1 button for Q and Z, or press star for a complete directory listing.”

The VP system then begins accepting digits. It keeps accepting digits until it reaches the maximum of digits specified (the default is 3 digits, maximum is 7 digits), or until the caller stops dialing, whichever happens first. Using the numbers provided by the caller, it searches its database of mailboxes to find all that have entries in the LAST name field that match the keys entered by the caller. The VP system plays each name in turn, asking the caller if this is the person he/she wants to call. If, for example, the caller enters 764 (indicating. S-M-I to search for Mike Smithers), the VP system may respond with:

"Anne Smiley. If this is the person you want, press 1 <pause>.
Bill Smith. If this is the person you want, press 1 <pause>.
Mike Smithers. If this is the person you want, press 1 <pause>."

You can program the VP system to also provide the mailbox number of the individual selected by the caller (so the caller can note it for future reference) before the system transfers the call. For example:

"That number is four-two-one-six. Please hold for Bill Smith."

A caller can also press * in place of spelling out the party's name to hear a complete listing of mailbox owners included in the directory.

> **Note**: If you do not want a mailbox owner's name to be listed as part of the directory, enter the **@** symbol as the first letter of the mailbox owner's last name on the mailbox's MAILBOX screen (for example, change "Jones" to "@Jones").
>
> The mailbox is also not included in the directory if no name is recorded for the mailbox.

As each mailbox owner's name is played, the VP system accepts any of the following keypresses from the caller:

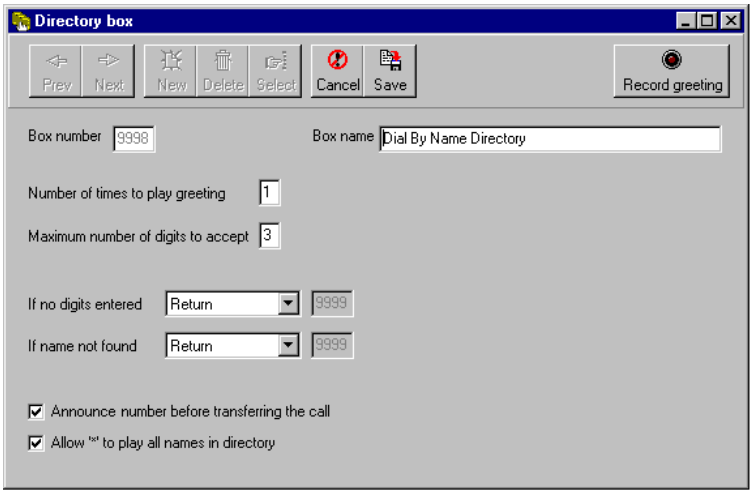
Keypress	Action Indicated
1	Transfer to that person.
2	Skip to the next name. (This also happens if the caller does not press any key.)
3	Try a different spelling.
#	Exit from the directory area. This causes the VP system to take whatever action is specified in the field IF NAME NOT FOUND.

5.9.2 DIRECTORY BOX SCREENS

DOS-based VP System Directory Box Screen

```
                    D I R E C T O R Y   B O X

Box number : 9998      BOX NAME : Dial By Name Directory

Greeting recorded : No

Number of times to play greeting :  1

Max number of digits to collect :   3

If no digits dialed: Return         - box

If name not found:   Return         - box

Say box number before transferring? Yes

Allow complete directory listing?   Yes
```

Windows-based VP System Directory Box Screen



5.9.3 DIRECTORY BOX FIELD DESCRIPTIONS

Be advised that due to differences in the screen design between DOS-based and Windows-based VP systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

Fields used in DOS-based VP systems are prefaced below with **DOSVP**, and fields used in Windows-based VP systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

Several field descriptions discuss setting fields to YES or NO settings. In Windows-based VP systems, this equates to checking or un-checking the field's checkbox, which you do by clicking on it.

DOSVP:Box Number
WINVP:Box Number

This field displays the Directory box number (9998). It is assigned by the system, and it cannot be changed or deleted.

DOSVP:Box Name
WINVP:Box Name

This field identifies the name of the box. The name is used when the VP system is displaying line activity on the screen while the system is running.

DOSVP:Greeting Recorded
WINVP:Record Greeting button

This field identifies whether a greeting has been recorded for the Directory box. On Windows-based VP systems, an existing recording is signified by a red light displaying on the button.

The greeting is played as soon as a caller is routed to the Directory box, and it should instruct the caller to spell out the first few letters of the person's last name (maximum of 7). If no greeting is recorded, the default greeting is used (see above).

On DOS-based VP systems, when you bring the cursor into this field, a menu appears, offering the option to play, delete, copy, or record the greeting. By selecting RECORD you can record the greeting via a telephone line connected to the voice processing board. To record the greeting, select RECORD, press <Enter>, and call into voice mail line 1. When voice mail answers, select RECORD and speak the greeting. To end the recording, press <Enter> again. To hear the recording, select PLAY.

On Windows-based VP systems, you can record the greeting by clicking on the Record Greeting button, then using the controls on the Sound Recorder dialog box. At the lower right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

DOSVP:Number of Times to Play Greeting
WINVP:Number of Times to Play Greeting

While the VP system is playing the Directory box greeting, it is also monitoring the line to detect if the caller dialed a digit. If no digit is detected by the time the VP system finishes the greeting, it repeats the greeting the number of times specified in this field. For example, if you enter **2** in this field the VP system plays the greeting two times before taking the action specified in the IF NO DIGITS DIALED field (DOSVP systems) / IF NO DIGITS ENTERED field (WINVP systems).

DOSVP:Max Number of Digits to Collect
WINVP:Maximum Number of Digits to Accept

Once the VP system has asked the caller to spell the name of the requested party, it keeps accepting digits until it reaches the number of digits specified in this field, or until the caller stops dialing, whichever happens first. If you use the default value (3 digits), the VP system begins its search of the database as soon as the caller enters the first 3 letters of the person's name. If the caller enters only 2 digits (letters), the VP system pauses for a few seconds to ensure the caller has finished dialing. It then begins the search, using the digits that were entered.

Be advised that if you set this field to a low number, such as 3, and the caller enters additional digits, for example, 4, the VP system treats the additional digit(s) as a response to its prompt *"[Name], if this is the person you want, press 1."* For this reason, it is recommended you keep the number in this field higher than the number of digits you expect callers to dial, thus allowing the VP system to determine when the caller has finished entering digits.

DOSVP:If No Digits Dialed
WINVP:If No Digits Entered

If the caller has not entered a digit by the time the VP system finishes playing the Directory box greeting the specified number of times, the VP system executes whatever action is specified in this field. The options are:

Option	Action Indicated
GO TO BOX	Allows the call to route to another box. The new box number is entered in the next field.
SAY GOODBYE	The VP system says, "*Good-bye,"* then hangs up.
RETURN	The VP system goes back to the previous box that handled this call (usually a Routing box).
HANG UP	The VP system immediately terminates the call by going on-hook.

DOSVP:Box
WINVP:(Unlabeled Box field)

This field is valid only if the option in the corresponding field is set to GO TO BOX. This field contains the box number to which the call is to be routed if the caller does not enter a digit.

DOSVP:If Name Not Found
WINVP:If Name Not Found

Once the caller has entered the digits, the VP system begins searching for all names that match the given letters. The VP system plays each name in turn, asking if it is the correct one. If no match is found, or if the caller answers NO in response to all the matching names, the VP system performs whatever action is specified in this field. The options are:

Option	Action Indicated
GO TO BOX	Allows the call to route to another box. The new box number is entered in the next field.
SAY GOODBYE	The VP system says, "*Good-bye,"* then hangs up.
RETURN	The VP system goes back to the previous box that handled this call (usually a Routing box).
HANG UP	The VP system immediately terminates the call by going on-hook.

DOSVP:Box
WINVP:(Unlabeled Box field)

This field is valid only if the action in the corresponding field is set to GO TO BOX. It contains the box number to which the call is to be routed if the VP system was unable to find the correct name.

DOSVP:Say Box Number Before Transferring
WINVP:Announce Extension Number Before Transferring the Call

If this field is set to YES, the VP system voices the mailbox number of the called party before transferring the call. Setting the field to NO disables this feature, and the VP system simply transfers the call without saying the mailbox number.

DOSVP:Allow Complete Directory Listing
WINVP:Allow * to Play All Names in Directory

If this field is set to YES, a caller can hear the name of every mailbox owner included in the directory by pressing * when asked to spell out the party's name. To prevent callers from having this option, set this field to NO.

See section 7.14 for additional information on the VP system's directory feature.

5.10 Setting up an ACD Box / Customer Service Box

Note:	The **ACD box** is referred to as the **Customer Service box** in VP system versions 10.1x and higher.

5.10.1 WHAT DOES AN ACD BOX / CUSTOMER SERVICE BOX DO?

The ACD box / Customer Service box provides a level of Automatic Call Distribution (ACD) functionality, even if the telephone system does not have ACD or hunt groups. In the ACD box / Customer Service box, you specify a list of extension numbers. When a call is routed to the ACD box / Customer Service box, the VP system hunts through the list for a free extension and transfers the call to that extension. Figure 5-4 shows how a typical call can be handled by an ACD box / Customer Service box.

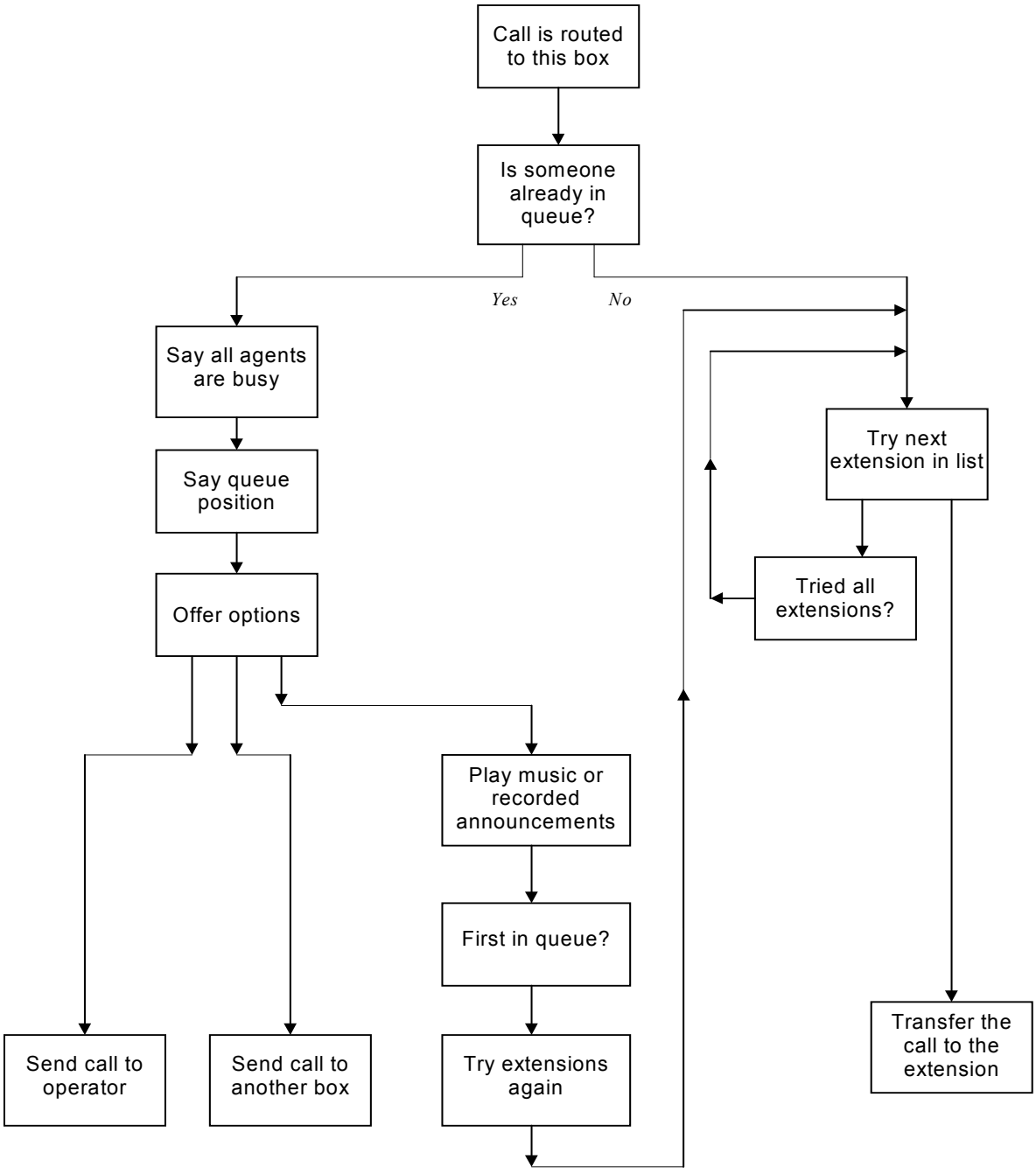


Figure 5-4 Typical Operation of an ACD box / Customer Service box

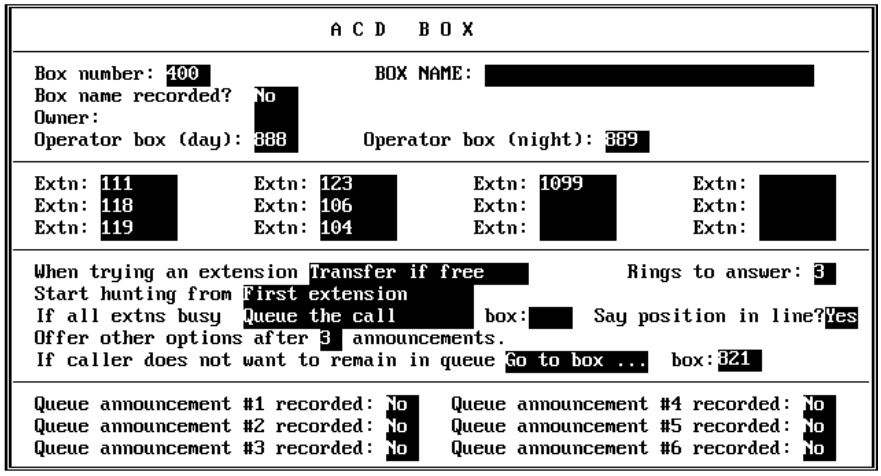
When a call is routed to an ACD box / Customer Service box, the VP system immediately transfers the call to the first extension in the box's list of extensions. If that extension is busy, the VP system tries the next extension, etc., until all extensions have been tried. Once a non-busy extension has been found, the VP system transfers the call to that extension and releases the call.

If all extensions are busy, the VP system places the call in a queue, plays a series of pre-recorded announcements to the caller, and keeps the caller informed of his/her position in the queue.

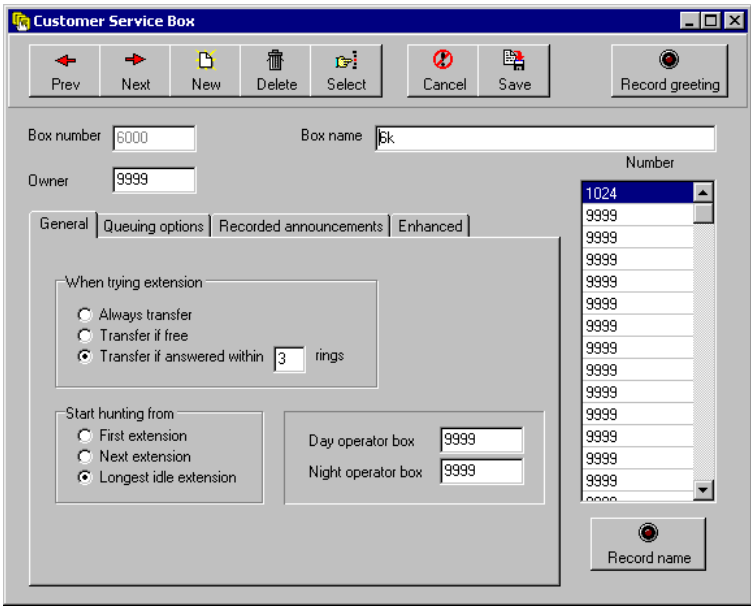
Individuals can add or remove their extensions to and from the ACD box / Customer Service box. Typically, they do so by dialing a special code (see section 7.4 for details on logging into and out of and ACD box / Customer Service box).

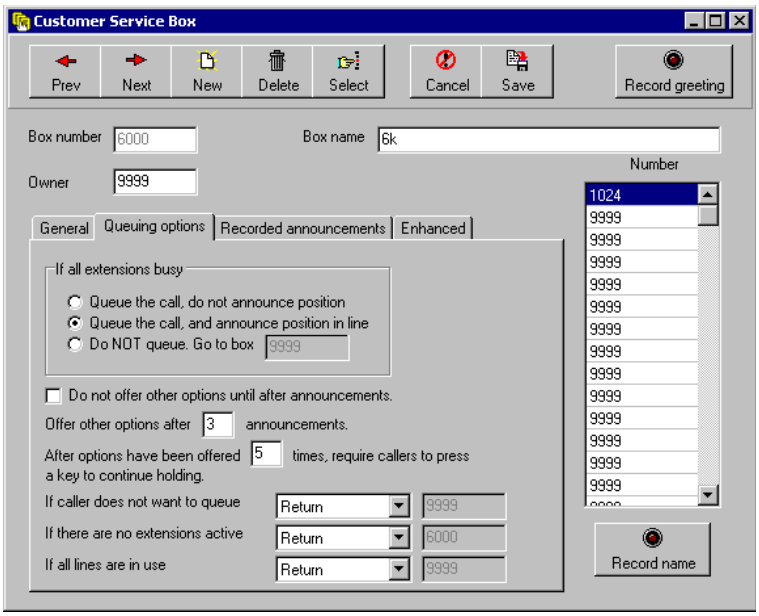
5.10.2 ACD BOX / CUSTOMER SERVICE BOX SCREENS

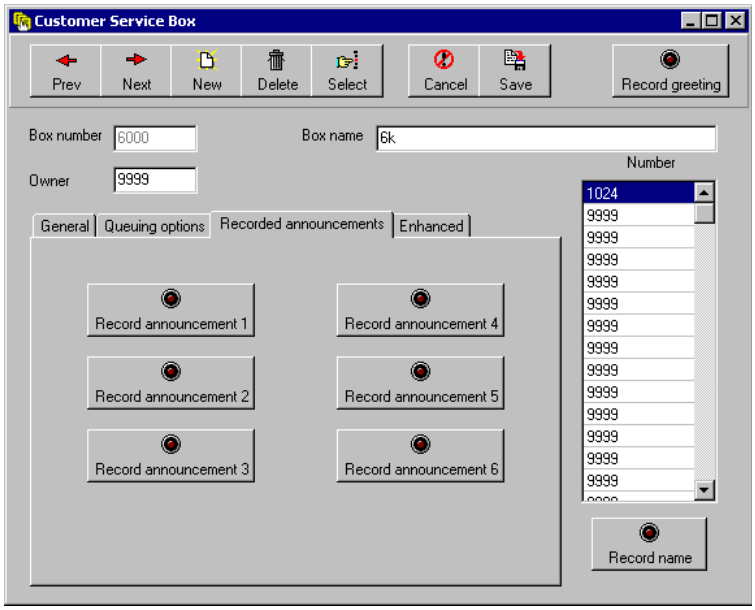
DOS-based VP System ACD Box Screen

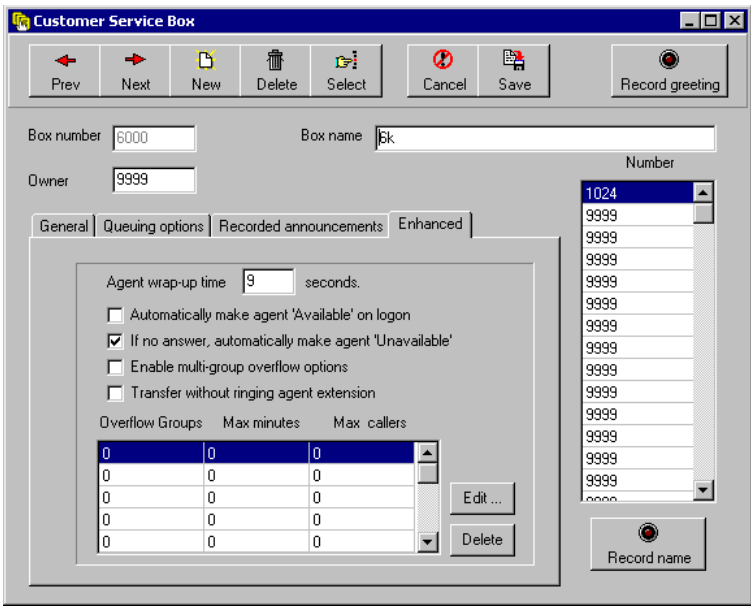


Windows-based VP System ACD Box / Customer Service Box Screens




Customer Service Box
Prev
Next
New
Delete
Select
Cancel
Save
Record greeting
Box number
6000
Box name
6k
Owner
9999
Number
1024
9999
General
Queuing options
Recorded announcements
Enhanced
If all extensions busy
Queue the call, do not announce position
Queue the call, and announce position in line
Do NOT queue. Go to box
9999
Do not offer other options until after announcements.
Offer other options after
3
announcements.
After options have been offered
5
times, require callers to press a key to continue holding.
If caller does not want to queue
Return
9999
If there are no extensions active
Return
6000
If all lines are in use
Return
9999
Record name


Customer Service Box
Prev
Next
New
Delete
Select
Cancel
Save
Record greeting
Box number
6000
Box name
6k
Owner
9999
Number
1024
9999
General
Queuing options
Recorded announcements
Enhanced
Record announcement 1
Record announcement 2
Record announcement 3
Record announcement 4
Record announcement 5
Record announcement 6
Record name



5.10.3 ACD BOX / CUSTOMER SERVICE BOX FIELD DESCRIPTIONS

Be advised that due to differences in the screen design between DOS-based and Windows-based VP systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

Fields used in DOS-based VP systems are prefaced below with **DOSVP**, and fields used in Windows-based VP systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

Several field descriptions discuss setting fields to YES or NO settings. In Windows-based VP systems, this equates to checking or un-checking the field's checkbox, which you do by clicking on it.

DOSVP:Box Number
WINVP:Box Number

This field displays the ACD box / Customer Service box number. A box number can be any number between 1 and 9969 (boxes 9970 – 9999 and 0 are reserved for the system). You cannot change this field on the screen. To view a different box, use keys <F4> (select a box number), <F5> (previous ACD box / Customer Service box), or <F6> (next ACD box / Customer Service box). If you want to add a new ACD box / Customer Service box, press <F2> (add).

On Windows-based VP systems, a box number can be up to 9 digits between 1 and 999999999 (except boxes 9970 – 9999 and 0, which are reserved for the system). Windows-based VP system users can create and view ACD / Customer Service boxes by selecting from icons at the top of the screen.

DOSVP:Box Name
WINVP:Box Name

This field identifies the name of the ACD box / Customer Service box. The name appears on the database listing and is used for record keeping.

By default, every ACD box / Customer Service box is included in the VP system's directory. If you do not want the ACD box / Customer Service box to be included in the directory, insert the @ symbol in front of the box name (for example, "SALES" is changed to "@SALES").

DOSVP:Box Name Recorded
WINVP:Record Name button

This field indicates whether a name has been recorded for the ACD box / Customer Service box. On Windows-based VP systems, an existing recording is signified by a red light displaying on the button.

The recorded ACD box / Customer Service box name is used in the directory, as in:

"The sales department. If this is correct, press 1."

On DOS-based VP systems, when you bring the cursor into this field, a menu appears offering the option to play, delete, copy, or record the name. By selecting RECORD you can record the name via a telephone line connected to the voice processing board. To record the name, select RECORD, press <Enter>, and call into voice mail line 1. When voice mail answers, select RECORD and speak the name. To end the recording, press <Enter> again. To hear the recording, select PLAY.

On Windows-based VP systems, you can record the name by clicking on the Record Name button, then using the controls on the Sound Recorder dialog box. At the lower right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

DOSVP:Owner
WINVP:Owner

This field contains the mailbox number of the owner of the ACD box / Customer Service box. Individuals with extensions (VP system versions 10.0x and lower) or mailboxes (VP system versions 10.1 and higher) that are included in the ACD box / Customer Service box use this mailbox when they want to log themselves into or out of the ACD box / Customer Service box.

For example, assume the owner of ACD box / Customer Service box 1000 is mailbox 2222. If an extension owner wants to be listed as a member of ACD box / Customer Service box 1000, he/she calls into the VP system, logs into mailbox 2222, selects 3—Options menu from the main menu, then presses 0 for ACD options. The VP system then prompts the extension owner for the ACD box / Customer Service box number and asks whether the extension is to be logged into or out of that ACD box / Customer Service box.

DOSVP:Operator Box (Day)
WINVP:Day Operator Box

While a caller is in the ACD queue, he/she can press 0 at any time to get out of the queue and speak with an operator. If the caller presses 0 while the system is in Day Service mode, the VP system routes the call to the box listed in this field. Typically, this box is a mailbox set up to transfer the call to a live operator.

DOSVP:Operator Box (Night)
WINVP:Night Operator Box

While a caller is in the ACD queue, he/she can press 0 at any time to get out of the queue and speak with an operator. If the caller presses 0 while the system is in Night Service mode, the VP system routes the call to the box listed in this field. Typically, this box is a mailbox set up to transfer the call to a live operator.

DOSVP:Extn
WINVP:Number

On DOS-based VP systems, these fields contain the numbers of extensions currently included in the call rotation for the box. The VP system dials each of these extensions in turn, looking for one that is not busy. Up to 12 extensions can be listed in a single ACD box. Each mailbox owner can add his/her extension to the list in the ACD box or remove it from the list. See section 7.4 for more information on how to add or remove extensions.

On Windows-based systems, these fields contain the numbers of mailboxes currently included in the call rotation for the box. The VP system dials the number specified in the TO field of each of these mailboxes in turn, looking for one that is not busy. Up to 50 mailboxes can be included in a single ACD box / Customer Service box. Each mailbox owner can add his/her mailbox to the list in the ACD box / Customer Service box or remove it from the list. See section 7.4 for more information on how to add or remove mailboxes.

If the Windows-based VP system supports advanced ACD integration features and the USE ENHANCED CUSTOMER SERVICE FEATURES option is checked on the GENERAL INFORMATION screen, the NUMBER fields contain the mailbox numbers of agents that are able to log in and log out of the call rotation for the box. On these systems, this listing is static—it does not update as agents log in and log out of rotation—and the owner of the Enhanced Customer Service box can add mailbox numbers to the list without logging agents on. In addition, when an agent logs in to his/her mailbox and selects the ACD softkey to put the telephone in ACD mode, the VP system takes note of the extension from which the agent is calling. The system then uses that extension number as the number it dials when it wants to direct a call to the agent. This functionality allows any agent to use any telephone to participate in call rotations.

As of Release 10.3 of the Windows-based VP system, a customer service reports package is available for systems running Enhanced Customer Service/ACD features (also referred to as the Enhanced Customer Service box). Enhanced Customer Service Reports provide real-time and historical trending reports of call routing/distribution and desktop statistics. For more information on Enhanced Customer Service Reports, please refer to the *Enhanced Customer Service Feature* product information bulletin available with Comdial technical bulletin downloads and in the Sales information area of www.keyvoice.com.

DOSVP:When Trying an Extension
WINVP:When Trying an Extension area *(General tab)*

When a call is routed to the ACD box / Customer Service box, the VP system tries each extension in turn, looking for one to which it can transfer the call. This field tells the VP system how to determine when to transfer the call. The options are:

Transfer Option	Result
TRANSFER IF FREE	This is the recommended option. The VP system dials the extension number and listens to see if it is busy. If it is busy, the VP system moves on to the next extension. If it is not busy, the VP system transfers the call to that extension (without waiting for an answer).
ALWAYS TRANSFER	The VP system dials the extension number, pauses for a second, then transfers the call, whether or not the extension is busy or free.
TRANSFER IF ANSWERED	The VP system dials the extension number and listens to see if it is busy. If the extension is busy, the VP system moves on to the next extension. If the extension is not busy, the VP system continues to monitor the call to see if the called extension answers. If the extension answers, the VP system transfers the call. If the extension does not answer within a pre-defined period, the VP system moves on to the next extension. This method is not as efficient as the TRANSFER IF FREE method since the VP system has to remain on the line while waiting for the extension to answer.

DOSVP:Rings to Answer
WINVP:Transfer if Answered within X Rings *(General tab)*

This field is effective only if TRANSFER IF ANSWERED transfer option is selected. When the VP system dials the extension number and determines the extension is not busy, it continues to monitor the call to see if the called extension answers. If the extension does not answer within the number of rings specified in this field, the VP system moves on to the next extension.

DOSVP:Start Hunting From
WINVP:Start Hunting From area *(General tab)*

When a call is routed to the ACD box / Customer Service box, the VP system begins hunting for a non-busy extension. Use this field to tell the VP system the extension from which it is to start hunting:

Extension	Action Taken
FIRST EXTENSION	The VP system always starts hunting from the first extension listed in the ACD box / Customer Service box.
NEXT EXTENSION	The VP system keeps a record of which extension handled the previous call and starts hunting from the extension following that one. This ensures that calls are distributed evenly among the extensions in the ACD box / Customer Service box.
LONGEST IDLE EXTENSION	This option is available only if the system supports advanced ACD integration features and the USE ENHANCED CUSTOMER SERVICE FEATURES option is checked on the GENERAL INFORMATION screen. The VP system identifies non-idle extensions before attempting a call transfer (speeding call processing).

DOSVP:If All Extns Busy
WINVP:If All Extensions Busy area *(Queuing Options tab)*

Use this field to tell the VP system what to do if it is not able to find a free extension. The options are:

Option	Action Indicated
QUEUE THE CALL	The VP system informs the caller that all extensions are busy and that his/her call has been placed in a queue. It will (optionally) tell the caller his/her position in the queue. Windows-based VP system users can specify that option in this area. DOS-based VP system users must use the SAY POSITION IN LINE field on this screen. While the call is queued, the VP system plays pre-recorded announcements to the caller.
GO TO BOX	The VP system routes the call to the box you specify in this field. This can be a Routing box that offers other options to the caller or a mailbox that transfers the call to a pre-defined overflow extension. On systems not using Enhanced Customer Service, the first call into the ACD/Customer Service box is sent to the box specified in this field. Subsequent callers remain in the queue as if the field was set to QUEUE THE CALL until they reach the first position. When each call reaches the first position, it is sent to the box specified in this field. On systems using Enhanced Customer Service, callers are not queued but instead go immediately to the specified box.

DOSVP:Box
WINVP:(Unlabeled Box field) *(Queuing Options tab)*

This field is valid only if the option in the corresponding field is set to GO TO BOX. This field contains the box number to which the call is to be routed if all extensions are busy.

DOSVP:Say Position in Line
WINVP:*(No such field.)*

While a call is in the queue, the VP system keeps the caller informed on the progress of the call. If you set this field to YES, the VP system announces to the caller his/her position in the queue:

"[ACD box / Customer Service box name] is still busy. You are number [number] in line. If you would prefer to speak with an operator, press 0, or for other options, press 1."

If you set this field to NO, the VP system says:

"[ACD box / Customer Service box name] is still busy. If you would prefer to speak with an operator, press 0, or for other options, press 1."

DOSVP:*(No such field)*
WINVP:Do Not Offer Other Options Until After Announcements *(Queuing Options tab)*

If this box is left *un*checked, when a call is routed to a queue, the VP system offers the caller the option to remain on hold, speak with an operator, or try another extension. The VP system then plays the first of a series of pre-recorded announcements to the caller (these are typically music or commercials). At the end of each announcement, the VP system tries the extensions again. If they are busy, the next announcement is played to the caller. If this box is checked, when a call is routed to a queue, the VP system does not verbally offer the caller these options before playing the first in the series of announcements. Although the options are not voiced, a caller familiar with them can select them at any time, however.

DOSVP:Offer Options After
WINVP:Offer Other Options After X Announcements *(Queuing Options tab)*

While a call is in the queue, the VP system plays a series of pre-recorded announcements to the caller (these are typically music or commercials). At the end of each announcement, the VP system tries the extensions again. If they are busy, the next announcement is played to the caller.

After a number of announcements, the VP system goes back to the caller and offers the option to remain on hold, speak with an operator, or try another extension. This field allows you to specify the number of announcements that are to play before the VP system offers these options to the caller.

DOSVP:*(No such field)*
WINVP:After Options Have Been Offered X Times, Require… *(Queuing Options tab)*

This field indicates whether and how often a caller in queue is to be required to press a key in response to a prompt to stay in the queue. If you leave this field at the default value of 5, the caller will be prompted to press a key to remain in the queue after the fifth time the other options are voiced to the caller (see the field Offer Other Options After X Announcements). If the caller does not press a key to remain in the queue when hearing the prompt, the call is handled as specified in the field If Caller Does Not Want to Queue. Set this field to 99 to instruct the VP system to always assume the caller wants to continue holding. Set this field to 0 to always require a caller to press a key to indicate he/she wants to remain on hold.

DOSVP:If Caller Does Not Want to Remain in Queue
WINVP:If Caller Does Not Want to Queue *(Queuing Options tab)*

While a call is in queue, the VP system periodically goes back to the caller and offers the option to remain on hold, speak with an operator, or try another extension. If the caller chooses to try another extension, the VP system performs whatever action you specify in this field. For example, you could send the call to a Routing box that offers the caller the chance to try another extension. Also, on DOS-based VP systems, if there are no extensions in the ACD group (for example, everyone logged out of the group at closing time), calls routed to the ACD box / Customer Service box take whatever action is specified here.

DOSVP:*(No such field)*
WINVP:If There Are No Extensions Active *(Queuing Options tab)*

If there are no extensions in the ACD group (for example, everyone logged out of the group at closing time), calls routed to the ACD box / Customer Service box take whatever action is specified here.

DOSVP:*(No such field)*
WINVP:If All Lines Are In Use *(Queuing Options tab)*

If all the ports that are available to handle ECS calls are currently in use, calls routed to the Customer Service box take whatever action is specified here. Note that the number of ports allotted for ECS calls is set on the LINE INFORMATION screen.

DOSVP:Box
WINVP:(Unlabeled Box field) *(Queuing Options tab)*

This field is valid only if the option in the corresponding field was set to GO TO BOX. This field contains the box number to which the call is to be routed if a caller does not want to want to queue, there are no extensions active, or all lines are in use.

DOSVP:Queue Announcement x Recorded
WINVP:Record Announcement buttons *(Recorded Announcements tab)*

While a call is in the queue, the VP system plays a series of pre-recorded announcements to the caller (these are typically music or commercials). At the end of each announcement, the VP system tries the extension again. If it is busy, the next announcement plays to the caller.

To play announcements, the VP system first looks in these fields to determine if you have recorded announcements for this ACD box / Customer Service box. If you have, the VP system uses them. If there are no announcements recorded for this ACD box / Customer Service box, the VP system plays the default hold prompt (prompt 146).

If you have recorded more than one announcement for this ACD box / Customer Service box, the VP system plays each announcement in turn. If the call is at the head of the queue, the VP system pauses at the end of each announcement and tries to find a free extension. If the call is not at the head of the queue, the VP system plays each announcement in turn. When it reaches the last recorded announcement, it goes back to the first and restarts the cycle.

On DOS-based VP systems, when you bring the cursor into this field, a menu appears, offering the option to play, delete, copy, or record the announcement. By selecting RECORD you can record the announcement via a telephone line connected to the voice processing board. To record the announcement, select RECORD, press <Enter>, and call into voice mail line 1. When voice mail answers, select RECORD and speak the greeting. To end the recording, press <Enter> again. To hear the recording, select PLAY.

On Windows-based VP systems, you can record the announcements by clicking on the Record Announcement buttons, then using the controls on the Sound Recorder dialog box. At the lower right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

DOSVP:*(No such field)*
WINVP:Agent Wrap-up Time *(Enhanced tab)*

This field is available only if the system supports advanced ACD integration features and the USE ENHANCED CUSTOMER SERVICE FEATURES option is checked on the GENERAL INFORMATION screen. The field identifies the amount of time (in seconds) that the ACD agent's phone is to remain idle (no additional calls will be transferred to it) after each call is completed. This idle time allows the agent to perform any necessary administrative tasks associated with each call (logging information about the call into a database, for example).

DOSVP:*(No such field)*
WINVP:Automatically Make Agent Available on Logon *(Enhanced tab)*

This option is available only if the system supports advanced ACD integration features and the USE ENHANCED CUSTOMER SERVICE FEATURES option is checked on the GENERAL INFORMATION screen. Use this option to automatically make agents Available to answer calls for the group as soon they log into the ECS system. By selecting this option, one step is simply eliminated from the process of logging into the ECS system to answer customer service calls for the group.

DOSVP:*(No such field)*
WINVP:If No Answer, Automatically Make Agent Unavailable *(Enhanced tab)*

This option is available only if the system supports advanced ACD integration features and the USE ENHANCED CUSTOMER SERVICE FEATURES option is checked on the GENERAL INFORMATION screen. Use this option to have the system automatically make an agent Unavailable if a call is transferred to his/her extension and there is no answer at that extension. This feature enables the system to make agents Unavailable for ECS if they forget to make their extensions Unavailable when they leave or take a break. If an agent is logged into multiple ECS groups, the system makes the agent Unavailable for all groups when there is no answer at the extension. No new ECS calls will be transferred to the agent's extension until he/she manually makes the extension Available again.

The way the call that unanswered is handled by the system depends on the WHEN TRYING EXTENSION option that is select on the GENERAL tab of the ECS box. If either the ALWAYS TRANSFER option or TRANSFER IF FREE option is selected, the call is handled by the options set for the agent's mailbox, such as forwarding the call to another extension or leaving a voicemail message. If the TRANSFER IF ANSWERED WITHIN X RINGS is selected, the call returns to the ECS queue and is directed to the next available agent.

DOSVP:*(No such field)*
WINVP:Enable Multi-Group Overflow Options *(Enhanced tab)*

This field is available only if the system supports advanced ACD integration features and the USE ENHANCED CUSTOMER SERVICE FEATURES option is checked on the GENERAL INFORMATION screen. This option allows the system to overflow a queued call to another ECS group if a caller has waited in the queue longer than a specified number of minutes or the number of calls waiting in the queue a exceeds a specified number. When a call in the queue overflows to another ECS group, the system attempts to find another available agent according to the sequence of the overflow groups that are defined for the ECS box. When the system locates an available agent, the call is transferred to the agent and the agent's LCD displays the name of the ECS queue from which the call is transferred. A maximum of 10 overflow groups can be defined for an ECS box.

Note:	At least one agent must be logged into the ECS box for the system to overflow calls. This agent may be on another call or unavailable.

To define overflow groups:

1. Check the Enable Multi-Group Overflow Options option.
2. Click the first row of cells under Overflow Groups, then click the Edit button. The Overflow Detail screen appears.
3. In the Overflow Group field, enter the ECS box to which you want overflow calls sent. Note that this must be an ECS box not a Group box or Mailbox.
4. In the Minutes Waited in Queue Exceed field, enter the maximum number of minutes a call can wait in the queue before it is overflowed to another ECS group.
5. In the Number of Queued Callers Exceed field, enter the maximum number of callers that can wait in the queue before additional calls are overflowed to another ECS group.
6. Select the OK button to add the overflow option to the ECS box.
7. Click on the next row under Overflow Groups, click the Edit button, and repeat steps3-6 for each overflow option to set for the ECS box.
8. To enable overflow options for the ECS box, check this option, then click the Edit button and enter the ECS box number of the ECS group you want to route the overflow call to.

DOSVP:*(No such field)*
WINVP:Transfer without Ringing Agent Extension *(Enhanced tab)*

This field is available only if the system supports advanced ACD integration features and the USE ENHANCED CUSTOMER SERVICE FEATURES option is checked on the GENERAL INFORMATION screen. This option allows the system to call an extension without ringing the extension, which is especially useful when ECS agents are using headsets. The agent is notified of a new call by a tone in the headset and then the system immediately connects the call to the agent without the agent having to answer the phone or press a button on the telephone. When this option is *un*checked, calls in the queue will ring normally at the extension. Note that this option is set for the entire ECS box, not individual agents.

5.11 Setting up an Account Number Box

5.11.1 WHAT DOES AN ACCOUNT NUMBER BOX DO?

The VP system can collect an “account number” for each call and use that number in various places. For example, if the caller records a message, the account number is stored with the message. The account number can be any sequence of digits, such as a telephone number, Zip Code, or a customer account number.

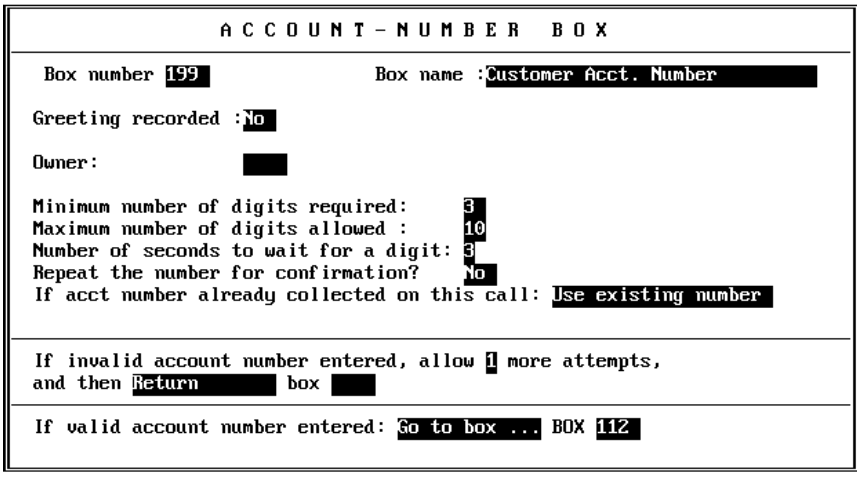
See section 7.23 for more detailed information on account numbers.

The VP system can collect the account number for the call several ways. If the telephone system sends the calling party number at the beginning of a call, you can have the VP system store that number as the account number. You can also collect account numbers by setting up an Account Number box.

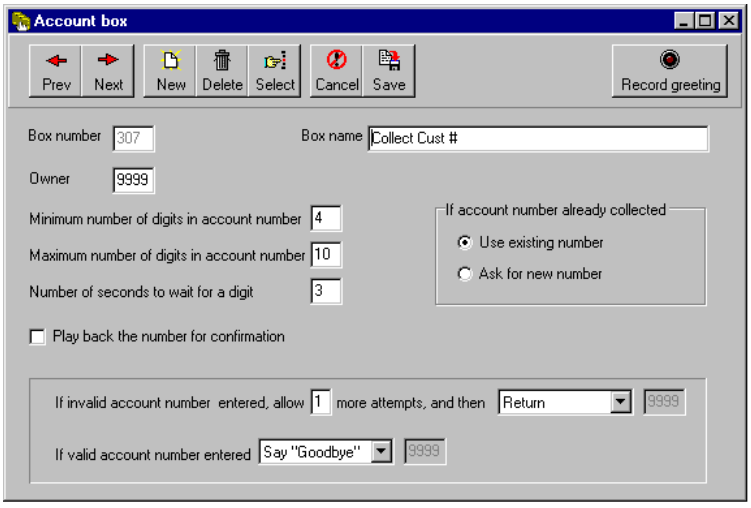
If you route the call to an Account Number box, the VP system prompts the caller to enter his/her account number (Zip Code, telephone number, or any other identifying number you want the system to collect). When the caller enters the digits, the VP system stores them as the account number for the call.

5.11.2 ACCOUNT BOX SCREENS

DOS-based VP System Account Box Screen


ACCOUNT-NUMBER BOX
Box number 199
Box name :Customer Acct. Number
Greeting recorded :No
Owner:
Minimum number of digits required: 3
Maximum number of digits allowed : 10
Number of seconds to wait for a digit: 3
Repeat the number for confirmation? No
If acct number already collected on this call: Use existing number
If invalid account number entered, allow 1 more attempts,
and then Return box
If valid account number entered: Go to box ... BOX 112

Windows-based VP System Account Box Screen



5.11.3 ACCOUNT NUMBER BOX FIELD DESCRIPTIONS

Be advised that due to differences in the screen design between DOS-based and Windows-based VP systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

Fields used in DOS-based VP systems are prefaced below with **DOSVP**, and fields used in Windows-based VP systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

Several field descriptions discuss setting fields to YES or NO settings. In Windows-based VP systems, this equates to checking or un-checking the field's checkbox, which you do by clicking on it.

DOSVP:Box Number
WINVP:Box Number

This field displays the Account Number box number. A box number can be any number between 1 and 9969 (boxes 9970 – 9999 and 0 are reserved for the system). You cannot change this field on the screen. To view a different box, use keys <F4> (select a box number), <F5> (previous Account Number box), or <F6> (next Account Number box). If you want to add a new Account Number box, press <F2> (add).

On Windows-based VP systems, a box number can be up to 9 digits between 1 and 999999999 (except boxes 9970 – 9999 and 0, which are reserved for the system). Windows-based VP system users can create and view Account Number boxes by selecting from icons at the top of the screen.

DOSVP:Box Name
WINVP:Box Name

The field contains the name of the Account Number box. The name appears on the database listing and is used for record keeping.

DOSVP:Greeting Recorded
WINVP:Record Greeting button

This field indicates whether a greeting has been recorded for the Account Number box. On Windows-based VP systems, an existing recording is signified by a red light displaying on the button.

The greeting is played as soon as a caller is routed to the Account Number box. A typical greeting is:

"Please enter your account number."

On DOS-based VP systems, when you bring the cursor into this field, a menu appears, offering the option to play, delete, copy, or record the greeting. By selecting RECORD you can record the greeting via a telephone line connected to the voice processing board. To record the greeting, select RECORD, press <Enter>, and call into voice mail line 1. When voice mail answers, select RECORD and speak the greeting. To end the recording, press <Enter> again. To hear the recording, select PLAY.

On Windows-based VP systems, you can record the greeting by clicking on the Record Greeting button, then using the controls on the Sound Recorder dialog box. At the lower right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

DOSVP:Owner
WINVP:Owner

This field contains the mailbox number of the owner of the Account Number box. The owner has the ability to call into the system to re-record the Account Number box greeting. If you do not want to offer this option, leave this field blank.

DOSVP:Minimum Number of Digits Required
WINVP:Minimum Number of Digits in Account Number

When the caller has entered digits to indicate his/her account number, the VP system consults this field to determine whether the digits entered represent a valid account number. If the caller entered too few digits, the VP system says, *"That was not a valid entry,"* and can (optionally) ask the caller to re-enter the number. Use this field to specify the minimum number of digits that are necessary for a valid account number.

When the caller has entered digits to indicate his/her account number, the VP system consults this field to determine whether the digits entered represent a valid account number. If the caller entered too many digits, the VP system says, *"That was not a valid entry,"* and can (optionally) ask the caller to re-enter the number. Use this field to specify the maximum number of digits that can constitute a valid account number. The VP system allows account numbers up to 30 digits.DOSVP:Maximum Number of Digits Allowed
WINVP:Maximum Number of Digits in Account Number

DOSVP:Number of Seconds to Wait for a Digit
WINVP:Number of Seconds to Wait for a Digit

Once the VP system has finished playing the box greeting, it waits for the caller to begin entering digits. If the caller enters no digits within the amount of time specified in this field, the VP system assumes the caller has finished dialing. For example, if this field is set to 3 and the caller enters 5555 then pauses 3 seconds, the VP system assumes that the account number is 5555 and continues processing the call. (To speed call processing, you can inform callers to press # after entering their number, *"Please enter your account number, followed by the pound key."* Once the system detects the # key, it immediately continues processing the call, without pausing to detect additional digits.

DOSVP:If Acct Number Already Collected For This Call
WINVP:If Account Number Already Collected area

Every time you route the call to an Account Number box, the VP system consults this field to determine what it is to do if it has already collected an account number for this call. If the VP system has not yet collected an account number, it plays the greeting for this box and continues as normal. If it has already collected an account number, it performs the action indicated in this field. The options are:

Option	Action Indicated
USE EXISTING NUMBER	The VP system does not ask for the account number again, and instead, uses the account number that was already collected. The system then performs whatever action is specified in the field IF VALID ACCOUNT NUMBER ENTERED.
ASK FOR NUMBER AGAIN	The VP system plays the Account Number box greeting, prompting the caller to enter the account number again.

DOSVP:Repeat Account Number for Verification
WINVP:Play Back the Number for Confirmation

If this field is set to YES, the VP system repeats the entire account number back to the caller. This allows the caller to verify he/she entered the digits correctly. For example:

"The number is 5557700, if this is correct, press 1."

If the caller presses any digit other than 1, the VP system prompts the caller to enter the number again. The caller may attempt to enter the number as many times as specified in the following field.

DOSVP:If Invalid Account Number Entered, Allow X More Attempts
WINVP:If Invalid Account Number Entered, Allow X More Attempts

If the caller does not verify the account number when prompted or if he/she entered too many or too few digits, the VP system prompts the caller to re-enter the number. The caller may attempt to re-enter the number as many times as specified in this field.

DOSVP:And Then X
WINVP:And Then X

If the caller does not verify the account number when prompted or if he/she entered too many or too few digits, the VP system prompts the caller to re-enter the number. The caller may attempt to re-enter the account number the number of times specified in the corresponding field. If the caller does not enter a valid number in the number of attempts specified, the VP system takes whatever action is specified in this field. The options are:

Option	Action Indicated
GO TO BOX	Allows the call to route to another box. The new box number is entered in the next field.
SAY GOODBYE	The VP system says, "*Good-bye,"* then hangs up.
RETURN	The VP system goes back to the previous box that handled this call (usually a Routing box).
HANG UP	The VP system immediately terminates the call by going on-hook.

DOSVP:Box
WINVP:(Unlabeled Box field)

This field is valid only if the option in the corresponding field is set to GO TO BOX. This field contains the box number to which the call is to be routed if the caller has not entered a valid account number after the pre-defined number of attempts.

DOSVP:If Valid Account Number Entered
WINVP:If Valid Account Number Entered

Once the caller enters a valid account number, the VP system takes whatever action is specified in this field. The options are:

Option	Action Indicated
GO TO BOX	Allows the call to route to another box. The new box number is entered in the next field.
SAY GOODBYE	The VP system says, "*Good-bye,"* then hangs up.
RETURN	The VP system goes back to the previous box that handled this call (usually a Routing box).
HANG UP	The VP system immediately terminates the call by going on-hook.

DOSVP:Box
WINVP:(Unlabeled Box field)

This field is valid only if the option in the corresponding field is set to GO TO BOX. This field contains the box number to which the call is to be routed if the caller enters a valid account number.

6. USING MAJOR FEATURES

In Windows-based systems, certain fields and screens have names that differ from those in DOS-based systems. In this section, field or screen names that are followed by **(DOS systems)** refer to DOS-based systems. Field or screen names that are followed by **(WIN systems)** refer to Windows-based systems.

Also, topics in this section sometimes reference setting certain fields to YES or NO settings. In Windows-based systems, this equates to checking or un-checking the field's checkbox, which you do by clicking on it.

Note:	Refer to section 29 for graphical illustrations of all VP system screens.

6.1 Using Call Logs

6.1.1 UNDERSTANDING THE CALL LOG

The VP system keeps a record of all incoming and outgoing calls. The record is called the *call log*.

On Windows-based systems, the call log file is used to generate system and mailbox usage reports, which you can view using the Report Generation client software. For information on using this report generation feature, see section 7.10.8.

On DOS-based systems, you can specify whether you want call log information to be written to a file or printed on a printer attached to the VP system PC. Use the procedure detailed below to specify how you want the call log information to be output.

To specify where the log is to be output on DOS-based Systems:

From the VP system main screen, press <F10>. The Main menu displays and you are prompted to enter a password.

Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Customer level passwords on the GENERAL INFORMATION screen.

From the Main menu, select SYSTEM INFORMATION. The System Information menu displays.

Select GENERAL from the System menu. The GENERAL INFORMATION screen displays.

Move the cursor to the field STORE CALL LOG TO. From this field, you can make an output selection.

To send the log to a printer, select PRINTER and verify:

The printer is attached to LPT1 on the PC.

The printer is turned on and is on-line.

The printer is set to perform a CARRIAGE-RETURN and LINE-FEED when it receives a line feed character (such as an automatic carriage-return). Consult the printer documentation for information on making these settings.

To store the log in a file, select STORE LOG INFORMATION IN FILE. The VP system creates a file called VOICMAIL.LOG in the \VM\LOG directory. All log information is written to that file. At midnight each day, the contents of VOICMAIL.LOG are transferred to another file in the directory \VM\LOG for long-term storage. The name of the long-term storage file is based on the month and day. On February 15, for example, the daily log file is stored AS VOICEMAIL.LOG. At midnight, the contents of VOICEMAIL.LOG are copied to the file 0215.LOG, and the file VOICEMAIL.LOG is cleared to record the log of calls on February 16. At midnight on February 15, the contents of VOICEMAIL.LOG are copied to the file 0216.LOG, and VOICEMAIL.LOG is cleared to record the log of calls on February 17.

Up to one year's worth of information can be stored. After that, the VP system will begin over-writing the previous year's log files.

Note: Storing log files to disk can use a large amount of the disk space. Make sure that the hard disk drive is large enough, or plan a schedule to delete the log files periodically.

7.1.2 Specifying Call Log Formats (DOS-based Systems)

A sample DOS-based VP system log file entry displaying information for one call is shown below.

```
1 I 8-16-90 14:04:05 8-16-90 14:12:22 556-1234 2125551212 Busy 800 400
```

Figure 7-1 Log entry for one call when printed on a report

Reading from left to right, the fields represent:

Field	Description
1	The line on which the call originated or was received
I	Incoming call. Other valid characters for this field are: I – Incoming call P - Outgoing pager call M - Outgoing message-notification call W - Message waiting lamps - turning on or off L - Used with VCM only F - Used with Fax module only T - Used with Telemarketing module only Z - Wake-up call
8-16-90	Date the call started.
10:04:05	Time the call started.
8-16-90	Date the call ended.
14:12:22	Time the call ended.
555-1234	Number dialed (for call transfer, message notification, etc.)

2125551212	Account number for the call (see section 7.23)
Busy	Outcome of outgoing call.
800 400	Audit trail showing up to 99 boxes used by the call. The number of boxes to be traced is configurable on the GENERAL INFORMATION screen.

If log information is stored to a file, each field of the above information is enclosed in quotes and separated from the next field by a comma (see Figure 7-2 Log entry as it displays in file). This format makes the log file compatible with popular database and spreadsheet programs.

```
"1","I","8/16/90","14:04:05","8/16/90","14:12:22","5561234","2125551212" .... ...
                                                                    "Busy","800","400"
```

Figure 7-2 Log entry as it displays in file

Note: If the log files contain long strings of empty quotes, reduce the number of boxes the VP system should log on each call. You specify this number on the GENERAL INFORMATION screen. When recording the audit trail of boxes used by the call, the VP system generates a box number enclosed in a set of quotes for as many boxes as you specify on the GENERAL INFORMATION screen. If a call uses fewer boxes than the number you specified to be logged, the VP system includes the remaining boxes as blank entries enclosed in quotes.

7.2 Using the Monitor

The Monitor feature allows you to obtain a more detailed account of the minute-by-minute activity within the VP system. When activated, Monitor records each of the following activities, writing special records to the log file VOICMAIL.MON in the \VM\LOG directory.

Record type	ID#	Description	Event name in log file
Move to new box	1	The call was routed to the given box.	Goto box
Start of call	2	Start of a call.	Start call
End of call	3	End of a call.	End call
Digits dialed	4	A sequence of digits was dialed.	Dialing
Call-progress result	5	The disposition of a call (busy, no-answer, etc.) was determined.	Call result
Start of recording	6	A message, greeting, name, etc. is about to be recorded.	Start record
Remote password change	7	Owner called in and changed his/her mailbox password.	Chg password
Transfer number changed	8	Owner called in and changed his/her Call Transfer number.	Chg xfer num
Message notification number changed	9	Owner called in and changed his/her Message-Notification number.	Chg notif num
Pager number changed	10	Owner called in and changed his/her pager number.	Chg page num
Mailbox being opened	11	The given mailbox was opened successfully.	Open Mailbox
Invalid password	12	An invalid password was entered to attempt to open the mailbox.	Bad password
End of recording	13	Recording of message, name, etc. has finished.	Stop record
Message recorded	14	A message was recorded in the given mailbox.	Add msg
Message deleted	15	A message was deleted from the given mailbox.	Delete msg
Disk-space remaining	16	Generated at midnight every night. Shows amount of free disk space.	Message space
Access to database lookup file	17	A caller was sent to a Routing box that uses the database lookup feature.	DB lookup
Call to digital pager	18	Records the callback number sent to a display (digital) pager.	Callback num
Track allocations	19	A new mailbox was automatically allocated by the Talking Classified module.	Auto allocate
Track de-allocations	20	A mailbox was automatically de-allocated by the Talking Classifieds module.	Auto de-alloc
Tandem call	21	A mailbox owner has placed an outgoing call from his/her open mailbox.	Relay call
ACD call	22	The VP system has attempted to transfer a call to an extension or mailbox in the specified ACD group.	ACD call
Change wake-up time	23	The wake-up time for the specified box has been changed. See section 8.2 for more information.	Wakeup time
Change wake-up state	24	The wake-up state for the specified box has been changed. See 8.2 for more information.	Wakeup state

To enable the Monitor feature for *all* of the events, add a line containing the word `MONITOR` to the configuration file VM.CFG (see section 12). To enable the Monitor feature for only specific events, enter the following line in the configuration file:

`MONITOR = n` where `n` is the ID number of the event to be monitored

For example, to monitor messages being left for mailboxes and invalid passwords, add the following two lines to the configuration file:

MONITOR = 14
MONITOR = 12

The first line instructs the VP system to monitor the arrival of mailbox messages (14), and the second line instructs it to monitor invalid password entries (12).

Each monitor event displays as a separate line in the file VOICMAIL.MON, and each has the following format:

"MON","n","date","time","event_name","data1","data2","data3"

where:

`n` = line number
`date` = date on which event happened
`time` = time at which event happened
`event-name` = event name as shown in above table
`data1` = first unit of information about event
`data2` = second unit of information about event
`data3` = third unit of information about event.

Note that not all Monitor events contain all 3 data units.

7.3 Performing Call Transfers

7.3.1 Understanding Call Transfers

The call transfer feature allows the VP system to act as an attendant, answering the calls and transferring them to the appropriate extensions. Since the VP system is connected to analog 2500-type station lines, it performs exactly the same actions as a live person does using a standard telephone instrument. To set up the VP system so it transfers calls properly, you must answer two basic questions based upon the specific installation:

- How do you want transferred calls to be handled when the called party answers, the called party is busy, and the called party does not answer (ring-no-answer)?
- Does the telephone system connected to the VP system have voice mail integration capabilities (such as in-band or out-of-band signaling)?

Because of the VP system's many features, there are several possible call transfer options.

7.3.2 Understanding Transfer Types

- **NO TRANSFER—**The VP system does not attempt to transfer the call to the mailbox owner's extension. Instead, the VP system immediately plays the active personal greeting and offers to take a message.
- **WAIT FOR RING—**The VP system dials the mailbox owner's extension, and monitors the line only for call progress tones. If the line is busy, the transfer is canceled and the same options are available as with WAIT FOR ANSWER and SCREEN. If ringing is heard, the VP system completes the transfer and drops out of the call. Unless some further action is taken by the telephone system, the VP system does not know the final outcome of this call (for example, whether the call was answered).
- **WAIT FOR ANSWER**—The VP system monitors the call for all possible outcomes (call is answered, line is busy, or ring-no-answer) and has options available for each possible outcome.
- **SCREEN—**Same as WAIT FOR ANSWER with the added feature of allowing answered calls to be accepted or rerouted by the answering party.
- **BLIND—**The VP system transfers the call unconditionally (even if the line is busy) and drops out of the call. Unless some further action is taken by the telephone system, the VP system has finished with this caller and does not know the outcome of the call.

7.3.3 Understanding Call Transfer Results

The results of a call transfer depend upon the transfer type selected.

- **NO TRANSFER—**The caller always receives the mailbox owner's active personal greeting (if one has been recorded) or a system default prompt (if a personal greeting has not been recorded). The caller has several available options (see section 5.5).
- **WAIT FOR ANSWER—**There are 3 general possibilities:

  *The called party answers. The VP system announces the call, then disconnects.

  *The called party is busy. The VP system cancels the transfer, announces to the caller that the station is busy and offers options (section 7.9). You can disable call queuing by placing the mailbox in a Class of Service that allows zero calls to hold (see section 4.10).

  *The called party does not answer. The VP system cancels the transfer after the specified number of rings and plays either the active personal greeting or the system default greeting.
- **SCREEN—**Same as WAIT FOR ANSWER, except when the call is announced, the called party has the option to accept or reroute the call. If the call is rerouted, the calling party either receives the mailbox owner's active personal greeting (or the system default prompt if no greeting is recorded) or is transferred to another mailbox in the system.
- **WAIT FOR RING—**If the called station is busy, the call is handled exactly the same as with WAIT FOR ANSWER. If ringing is heard on the line, the VP system completes the transfer and drops out of the call. If the called party subsequently answers, he/she is connected immediately to the calling party with no call announcing or call screening. If the called party does not answer, the outcome depends on the capabilities of the telephone system. There are 4 general possibilities:

*The telephone system has no forward-no-answer capabilities. The caller hears ringing until he/she decides to hang up. This scenario usually occurs only when the VP system is connected directly to a standard C.O. line.

*The telephone has unanswered call transfer-recall capabilities, but does not offer voice mail integration. At the expiration of the telephone system transfer-recall timer, the call is returned to the VP system, which answers with the same initial greeting all new calls receive.

*The telephone system has the forward-no-answer feature, but does not offer voice mail integration. You can choose to forward the unanswered calls to a live person, or you can forward them back to the VP system where, depending on how you configure the system, they receive the same initial greeting as new calls or a general secondary greeting (such as, *"I'm sorry, the party is not available..."*).

*The telephone system has the forward-no-answer feature with voice mail integration. Unanswered calls can still be forwarded to a live person, but they can also be forwarded to a mailbox on the VP system, which answers each call with the mailbox owner's active personal greeting, or to any other valid box type in the system (a Routing box, for example). See also section 7.13.

- **BLIND—**The VP system transfers the call unconditionally, and the telephone system is totally responsible for the final outcome of the call. Again, there are 4 general possibilities:

  *The telephone system has no forward-busy or forward-no-answer capabilities. The caller simply hears busy or ringing tone until he/she hangs up.

  *The telephone has unanswered call transfer-recall capabilities, but does not offer voice mail integration. At the expiration of the telephone system transfer-recall timer, the call is returned to the VP system, which answers with the same initial greeting as all new calls.

  *The telephone system has the forward busy and forward-no-answer features, but does not offer voice mail integration. You can choose to forward the unanswered calls to a live person, or you can forward them back to the VP system where, depending on how you configure the system, they receive the same initial greeting as a new calls or a general secondary greeting (such as, *"I'm sorry, the party is not available..."*).

  *The telephone system has the forward-busy and forward-no-answer features with voice mail integration Both types of calls can still be forwarded to a live person, but they can also be forwarded to a mailbox on the VP system, which answers each call with the mailbox owner's active personal greeting, or to any other valid box type in the system (a Routing box, for example). See also section 7.13.

The following table summarizes the available configuration options. For simplicity, some options such as Reason codes (section 7.13) are omitted.

Telephone System Capabilities Required						
Transfer type	**Call result**	**What you want to happen**	**Normal call progress tones**	**Unanswered call recall timer only**	**Call fwd - no integration**	**Call fwd with integration**
WAIT FOR ANSWER	Answered	Announce call	X			
	Busy	Queue the call	X			
		Personal greeting	X			
	No answer	Personal greeting	X			
SCREEN	Answered	Announce call and offer options	X			
	Busy	Queue the call	X			
		Personal greeting	X			
	No answer	Personal greeting	X			
WAIT FOR RING	Answered	Connect	X			
	Busy	Queue the call	X			
		Personal greeting	X			
	No answer	Play “not available” greeting			X	X
		Personal greeting				X
BLIND	Answered	Connect	X			
	Busy	Play “not available” greeting			X	X
		Personal greeting				X
	No answer	Play “not available” greeting			X	X
		Personal greeting				X

Table 7-1 Call Transfer Cross-reference

7.3.4 Specifying Call Transfer Types

There are 2 main areas of programming that affect the call transfer process:

- Parameters in the CALL TRANSFER INFORMATION and OTHER CUSTOMIZATIONS screen (DOS systems) / PBX INFORMATION screen (WIN systems) as described in section 4.
- The individual mailbox screens, where you can tailor the call transfer options to suit the particular mailbox owner, as described in section 5.5.

The next few sections follow the call transfer process and describe the options in detail.

The Call Transfer Process Begins

When a call is routed into a mailbox, the VP system attempts to transfer the call to the number specified unless one of the following conditions is met:

- TRANSFER TYPE field of the mailbox is set to NONE.
- Transfer Bypass feature has been invoked.
- Call Transfer feature has been turned off remotely (see section 6.6*)*
- Call arrived outside the mailbox call transfer schedule times (see section 5.5*)*

If any of these conditions are met, the mailbox owner's active personal greeting is played and the call proceeds as described in section 5.5.

If none of these conditions are met, the VP system attempts to transfer the call. Before the caller is put on hold, there are several options:

- System default option. The VP system plays the prompt:
- "Please hold while I transfer the call to John Smith."
- Individual mailbox @ option. Placing the **@** symbol before the mailbox owner's first name on the MAILBOX screen causes the VP system to play the prompt:
- "*Please hold while I transfer the call to that extension."*
- Individual mailbox & option. Placing the **&** symbol before the mailbox owner's first name on the MAILBOX screen prevents any prompt and/or the name from being played. The caller is simply put on hold.
- System-wide option. You can prevent the mailbox owner's name from *ever* being played to any caller prior to a transfer by entering NO in the field WHEN CALLED PARTY ANSWERS, PLAY HIS/HER NAME? on the OTHER CUSTOMIZATIONS screen (DOS systems) / GENERAL INFORMATION (WIN systems). The VP system plays the prompt:

  "Please hold while I transfer the call."

Next, the VP system looks at the number in the TRANSFER TO field of the mailbox, counts the number of digits in the number, and determines whether this is an *internal* or *external* transfer. The system determines this by comparing the number of digits counted to the number specified by the MAX INTERNAL parameter in the system configuration file (see section 12).

If the number of digits in the TRANSFER TO field is less than or equal to the number defined by MAX INTERNAL, then the VP system treats the transfer as *internal*. If the number of digits is greater, the transfer is treated as *external*.

> **Note:** Do not confuse the sequence of events that occurs when the VP system makes an external transfer with the event sequence when the VP system originates an outgoing call (for example, for paging and message notification).

The VP system then looks at the appropriate column (INTERNAL or EXTERNAL) on the CALL TRANSFER SCREEN (DOS systems) / PBX INFORMATION screen (WIN systems) and reads the field SEQUENCE TO INITIATE A TRANSFER. It dials this sequence of characters (typically "hook-flash, pause" for an internal transfer, "hook-flash, pause, the digit 9, pause" for an external transfer).

The VP system then dials the number indicated in the field TRANSFER TO on the MAILBOX screen. This field can contain the digits 0 through 9, characters *, and #, and the special characters listed in section 5.5.

> **Note:** If the telephone system has more than one access code for external transfers (for example, "9" for local calls, "81" for WATS lines, "82" for tie-lines, etc.) these codes must be included in the TRANSFER TO field (for example, 9,5551234).

Once the VP system has dialed the complete number, it looks at the TRANSFER TYPE specified for the mailbox. If the TRANSFER TYPE is BLIND, the VP system pauses for a few seconds (to give the host telephone system time to do its processing), then disconnects, allowing the host telephone system to take control of the call. If the TRANSFER TYPE is not BLIND, the VP system handles the transfer by listening for a tone to decide whether the called party is busy or ringing (these tones are referred to as *call-progress tones*).

Called Party is Busy

If busy tone is detected, then the VP system cancels the transfer and returns to the caller. It does this by looking at the CALL TRANSFER SCREEN (DOS systems) / PBX INFORMATION screen (WIN systems), in the field SEQUENCE TO RETURN CALLER FROM BUSY. The VP system dials this sequence to return to the caller. The special characters described above also apply here. A typical sequence is a hook-flash, or with some Centrex systems, two hook-flashes (such as '!,!').

If the number of lines currently holding has reached the limit allowed for this extension, or if this mailbox has been denied call queuing (both determined by Class of Service), the caller hears the mailbox owner's active personal greeting. Otherwise, the VP system offers the caller the option to hold.

Called Party Rings

If the TRANSFER TYPE is WAIT FOR RING, once ringing tone or voice is heard on the line, the VP system completes the transfer by following the instructions in the field SEQUENCE TO COMPLETE A TRANSFER of the CALL TRANSFER SCREEN (DOS systems) / PBX INFORMATION screen (WIN systems).

If the transfer type is WAIT FOR ANSWER or SCREEN, and there is no answer after a certain number of rings (specified in the field RINGS TO ANSWER on the MAILBOX screen), then the VP system goes back to the caller and plays the mailbox owner's active personal greeting. It does this by looking at the CALL TRANSFER SCREEN (DOS systems) / PBX INFORMATION screen (WIN systems), in the field SEQUENCE TO RETURN FROM NO ANSWER. The VP system dials this sequence, then plays the greeting. The special characters described above also apply here. A typical sequence is a hook-flash, or with some Centrex systems, two hook-flashes (such as "!,!").

Called Party Rings and Answers

The following applies only if the transfer type is WAIT FOR ANSWER or SCREEN.

The VP system detects that the called party has answered if either:

- The break between rings is longer that normal
- Voice is detected on the line (for example, the called party says "hello")

When answer has been detected, the VP system examines the TRANSFER TYPE field defined for the mailbox once again. If TRANSFER TYPE is WAIT FOR ANSWER, then the transfer is considered successful. The VP system announces the call. The system default is the prompt:

"I have a call for you, [Name]."

If you have selected not to play the called party's name (on the OTHER CUSTOMIZATIONS screen (DOS systems) / GENERAL INFORMATION screen (WIN systems), the announcement is:

"I have a call for you."

The VP system then completes the transfer by looking on the CALL TRANSFER SCREEN (DOS systems) / PBX INFORMATION screen (WIN systems), in the SEQUENCE TO COMPLETE A TRANSFER field. If the way to complete a transfer is to hang up, this field is usually blank.

If the transfer type is SCREEN, the VP system gives the called party the choice of accepting the call or redirecting it with several options. The called party can:

- Press 1 to accept the call, and the parties are connected. The VP system completes the transfer as described above and drops out of the call.
- Press 2 to redirect the caller to the mailbox owner's active personal greeting.
- Press 3 to redirect the caller as specified in IF CALLER CHOOSES OTHER OPTIONS field on the MAILBOX screen.
- Press 4 plus a greeting number digit 0 – 9 to redirect the caller to the greeting number selected, provided the mailbox owner is allowed multiple greeting and the greeting number selected has been recorded.
- Press 5 plus a valid box number to redirect the caller to that box.
- Press 6 to accept the call (as with pressing 1). The VP system remains on the line and records the conversation. The recorded conversation is stored as a message in the called party's mailbox.

If the called party presses 6, the VP system completes the transfer by dialing the digits in the field SEQUENCE TO TRANSFER A THREE-WAY CALL on the CALL TRANSFER SCREEN (DOS systems) / PBX INFORMATION screen (WIN systems). If the called party presses a redirect option (2-5), the VP system cancels the transfer as specified in the field SEQUENCE TO RETURN FROM CALL SCREENING on the CALL TRANSFER SCREEN (DOS systems) / PBX INFORMATION screen (WIN systems). The calling party is then redirected and the called party is disconnected.

7.3.5 Detecting Call-Progress Tones

The VP system can detect most call-progress tones. However, some key systems and PBXs provide non-standard ringing, busy, and re-order tones. In these cases, the VP system must be "trained" to recognize the tones. See section 13.

There may be instances when the VP system cannot be trained to recognize the phone system's call progress tones. In these instances it is possible to instruct the system to stop listening for the call progress tones. This should be done only as a last resort, as certain VP system features, such as call queuing, are lost when call progress tone detection is disabled.

To turn off call-progress tone detection, access the CALL TRANSFER screen (DOS systems) / PBX INFORMATION screen (WIN systems) and move the cursor to the field DETECT CALL PROGRESS TONES. Set the value of this field to NO. Next, set the TRANSFER TYPE field on MAILBOX screens to SCREEN.

In this mode, once the VP system has dialed the transfer number, instead of listening for ringing or busy tones, it immediately begins playing the prompt:

"I have a call for you. Press 1 to accept the call, press 2 if you would like me to take a message .... I have a call for you, press 1..."

The VP system repeats this message several times, listening for a touch-tone to be entered. If no touch-tone digit is received, the VP system returns to the caller and plays the mailbox owner's active personal greeting. The number of times the VP system repeats the message is specified on the MAILBOX screen in the RINGS TO ANSWER field (DOS systems) / ASSUME NO ANSWER AFTER X RINGS field (WIN systems).

7.3.6 Using the Transfer Bypass Feature

There are two ways that the transfer bypass feature is used:

- Manual transfer bypass
- Automatic transfer bypass

Manual Transfer Bypass

There are times when a caller wants to leave a message in a mailbox without having the VP system attempt to transfer the call to the mailbox owner (and ring the mailbox owner's extension).

A caller (internal or external) can bypass the call transfer feature by dialing a * at the beginning or end of the mailbox number. Instruct the VP system whether to expect the * at the beginning or end of the number by completing the field USE TRANSFER BYPASS DIGIT on the CALL TRANSFER screen (DOS systems) / PBX INFORMATION screen (WIN systems). Select one of the 3 options:

Menu option	Meaning
none	Do not use the transfer-bypass feature.
first digit	Expect the transfer-bypass digit to arrive before the mailbox number.
last digit	Expect the transfer-bypass digit to arrive after the mailbox number. This is the default setting.

> **Note:** Refer to Automatic Transfer Bypass, next in this section and section 7.13 before selecting a choice for the TRANSFER BYPASS DIGIT field.

Assume that the VP system in the XYZ company is set up to expect the * as the last digit. Mr. Smith calls XYZ company and asks to speak to Ms. Jones on extension 319. The operator knows that Ms. Jones is on vacation, but has a mailbox (319). To transfer the call directly to Ms. Jones' mailbox:

- The operator dials the VP system.
- The VP system answers the call and begins playing the greeting in the initial box for the line.
- The operator dials 319*.
- The VP system routes the call to mailbox 319, then plays the prompt *"You may transfer the call now."*
- The operator hangs up. Mr. Smith is connected to the VP system and hears Ms. Jones' active personal greeting.

> **Note:** The system prompt "You may transfer the call now," is inserted as confirmation that the transfer bypass is successful (a valid mailbox number was dialed and the VP system understands the instructions). Although you can configure the system so this prompt is not voiced, it is recommended that you retain the prompt for manual transfer bypass calls. If the operator is not expecting confirmation and mis-dials the number, then hangs up, the caller could be lost.

Automatic Transfer Bypass

Automatic transfer bypass is available only if the telephone system has voice mail integration capabilities. Only in-band signaling is discussed here. Out-of-band signaling (typically via the PC serial port) requires an optional software package, which is supplied with specific documentation and instructions.

If a call is transferred to a ring-no-answer station using the transfer type WAIT FOR RING, or if a call is transferred to either a busy or ring-no-answer station using the transfer type BLIND, a telephone system with in-band signaling can be set to 1) forward unanswered calls back to the VP system and 2) transmit the called station's extension number to the VP system via DTMF tones.

As with manual transfer bypasses, the call is to go directly to the mailbox owner's personal greeting without completing the call transfer process.

You set up an automatic transfer bypass by creating a digit translation table. By using the table, the VP system analyzes incoming DTMF tones to determine whether they belong to a mailbox, and if so, automatically adds the transfer bypass digit. See section 7.13 for information on building the digit translation table.

How to Choose the Transfer Bypass Digit

The VP system uses the * digit and the placement LAST DIGIT as default transfer bypass settings. These defaults work well with most telephone systems. When setting up the transfer bypass feature, use these defaults and the example translation tables shown in section 7.13. Should you need to modify these defaults, consider the following points:

- A digit other than * can be used as the transfer-bypass digit (see section 12).
- If you select LAST DIGIT on the CALL TRANSFER screen (DOS systems) / PBX INFORMATION screen (WIN systems), the transfer bypass digit cannot conflict with the system dialing plan. If the system had, for example, both 3 and 4 digit mailbox numbers and you chose "1" as the transfer bypass digit, the VP system cannot tell the difference between dialing mailbox 138 then 1 for transfer bypass, and dialing mailbox 1381. Using * for transfer bypass (the default) does not cause this conflict.

You can eliminate the prompt, "*You may transfer the call now,"* by entering the transfer bypass digit twice (for example, 319 * *).

- If you select FIRST DIGIT on the CALL TRANSFER screen (DOS systems) / PBX INFORMATION screen (WIN systems), you cannot use that same digit as a DESTINATION FOR DIGIT choice in the initial Routing box (the menu choice would override the transfer bypass feature). Verify the DESTINATION FOR DIGIT field beside the digit you have chosen for the transfer bypass digit is blank on the ROUTING BOX screen.

You can eliminate the prompt, *"You may transfer the call now,"* by replacing it with an "empty" voice file. See section 15 for information.

The FIRST DIGIT option generally cannot be used when the VP system is connected to a telephone system that sends voice mail integration digits.

7.3.7 Prompting Callers for Their Names

If you are using transfer types WAIT FOR ANSWER or SCREEN, you can configure the VP system so that it asks for the caller's name before attempting to transfer a call. To set up this option, set the field GET CALLER'S NAME? to YES on the MAILBOX screen.

> **Note:** Selecting the transfer type SCREEN does not automatically set up the system to ask for the caller's name. You must adjust the MAILBOX screen.

Once this option is active for a mailbox, when a caller enters the mailbox number, the VP system plays the system prompt:

"Please speak your name so I may announce who is calling."

The system then records the response and inserts the caller's name within the appropriate call-announcing prompt. If the transfer type is set to WAIT FOR ANSWER, the called party hears:

"I have a call for you [mailbox owner's name] from [recorded caller's name].

If the transfer type is SCREEN, a similar prompt plays followed by:

"Press 1 to accept the call, press 2 if you would like me to take a message..."

By default, the VP system gives the caller 4 seconds to record his/her name. You can change the time allowed. Refer to section 12 (XFER NAME TIME).

7.3.8 Using Different Greetings for Busy and No-Answer

You can set up the system to play a different personal greeting to callers based on whether the caller encounters a busy extension or a ring-no-answer extension. To do this, you use the multiple greetings feature of the mailbox:

To Set Up the Multiple Greetings Feature:

1. Set the Class of Service for the mailbox to allow 2 greetings (the VP system numbers these 0 and 1).
2. Instruct mailbox owners to use greeting 0 as the 'no answer' greeting, and use greeting 1 as the 'busy' greeting.
3. Instruct mailbox owners to record greeting 0 using a statement such as:

   "Hello, this is [name]. I'm sorry I am not available to take the call. If you would like to leave me a message, press 1."
4. Instruct mailbox owners to record greeting 1 using a statement such as:

   "Hello, this is [name]. I'm on another call right now. If you would like to leave me a message, press 1."

In-band (DTMF) integrations: If part of the integration packet indicates why the call transfer did not complete (for example, the packet includes a Reason code), you can use the digit translation feature to specify which personal greeting the VP system should play for each Reason code. For more information, see section 7.13.

Non In-band integrations: Add the following lines to the configuration file VM.CFG:

```
GREETING.NO ANSWER=0
GREETING.BUSY=1
```

See section 12 for more information on the VM.CFG configuration file.

7.3.9 Using Three-way Calling

What is Three-way Calling?

In general, three-way calling is simply a conference call involving 3 parties. In this context, one of the parties is the VP system, which should be part of the call only as long as necessary for it to perform its call processing functions. During normal call transfer functions, a three-way call may exist for just a few seconds, when the VP system performs the SEQUENCE TO COMPLETE A TRANSFER. There are some cases, however, when limitations of the telephone system require the VP system to remain a part of the call for the entire duration of the call.

You may need to use the three-way calling feature in three cases:

- **The VP system is connected directly to Central Office lines.**
  If the system is connected directly to a residential (R1) line, single business (B1) line, or multiple business lines assigned to a multi-line hunt group, it is likely that the call transfer service is not available (this limitation does not apply to Centrex service). You may, however, be able to order the three-way calling service.
- **The VP system is connected to a key system or PBX with trunk-to-trunk restrictions.**
  Many key systems and PBXs allow the VP system to set up a three-way conference that consists of two outside parties connected to C.O. lines (trunks) and the VP system as the third, internal station party, but they will *not* allow the VP system to drop out of the call leaving the two outside parties connected (a *trunk-to-trunk* connection). If this is the case with the telephone system, you will need to use the three-way calling feature.
- **When you have asked the VP system to record a conversation**.
  The VP system can optionally record the conversation when it performs a call transfer (see section 7.24). In this case, it must remain on the line, so it automatically uses the sequence in the field SEQUENCE TO TRANSFER A THREE-WAY CALL.

How Three-way Calling Functions

If you tell the VP system to use three-way calling (in the field USE THREE-WAY CALLING? on the MAILBOX screen), the VP system begins the sequence exactly the same as with a normal call transfer (it puts the calling party on hold, and dials the TRANSFER TO number). Once the called party has answered, the VP system must perform an action (usually a hook-flash) to conference all three parties. This action is defined in the field SEQUENCE TO TRANSFER A THREE-WAY CALL on the CALL TRANSFER INFORMATION (DOS systems) / PBX INFORMATION screen (WIN systems). At this time, the VP system must remain connected with the two outside parties for the duration of the call.

Terminating a Three-way Call

During the time that the VP system is a party in the three-way conference, it is continually monitoring the line for an indication that the call has ended. Because the use of three-way calling involves valuable system resources (two C.O. lines and a voice mail port), the VP system has a built in feature that ensures the conference is disconnected as soon as possible after the completion of the call.

The VP system interrupts the conversation at regular intervals, and prompts:

“Press 1 if you wish to continue your call.”

If a digit 1 is not detected, the VP system assumes the parties have hung up and frees the lines for other calls. You can define how often the VP system is to interrupt the conversation by accessing the CALL TRANSFER SCREEN (DOS systems) / GENERAL INFORMATION screen (WIN systems), going to the field MAX DURATION FOR A 3-WAY CALL, and entering (in minutes) the interval between interruptions.

7.3.10 Using the Follow-Me Feature

The Follow-Me feature was introduced starting with version 11.0 of Windows-based systems. This feature facilitates real-time caller to called party connection. The feature attempts to transfer callers to up to 10 additional internal and external phone numbers instead of simply playing the mailbox personal greeting to the caller, if the initial attempt to transfer the call to the number in the Transfer To field of the Mailbox setup screen results in the call being returned to the VP system.

For additional information on the Follow-Me feature, refer to Section 7.27, Setting Up the Follow-Me Feature.

7.3.11 Troubleshooting the Call Transfer Feature

The first rule in troubleshooting is to isolate the problem. If the VP system is not transferring calls correctly, the problem lies with either the telephone system or the VP system.

Hint:	Remember, the VP system is connected to industry-standard analog lines (2500-type) and performs call transfers exactly as a person using a telephone instrument would do.

To determine if a problem relates to the telephone system or the VP system:

1. Disconnect the VP system from the telephone system.
2. Connect a regular telephone to the line where the VP system was connected.
3. Have someone (referred to here as *Party A*) call in to that line.
4. When the telephone rings, pick up the telephone, to answer the call.
5. Try to transfer the call to the telephone to which the VP system was unable to transfer (referred to here as *Party B*). Note the sequence of actions you perform to do this, and note any tones you hear during the transfer.
6. The Party B telephone should ring. Have someone pick up the ringing telephone and speak to you. You should be able to hold a two-way conversation.
7. Try to connect Party A to Party B and drop out of the call yourself. Note the sequence of actions you perform to do this.
8. Verify that Party A and Party B are able to hold a two-way conversation.
9. Repeat step 5 in a scenario where Party B is busy, and note the sequence of actions you had to perform to get back to Party A.
10. Repeat step 5 in a scenario where Party B does not answer, and note the sequence of actions you had to perform to get back to Party A.

    If you were able to transfer the call as described above, then the telephone system is able to perform transfers successfully. The next step is to make sure the VP system knows how to perform transfers on this telephone system.

11. Go to the CALL TRANSFER screen (DOS systems) / PBX INFORMATION screen (WIN systems) (see section 4.8). In the field SEQUENCE TO INITIATE A TRANSFER, enter the sequence you performed in step 5 above. This sequence is typically a hook-flash (entered as **!**) and a pause for dial-tone (entered as **,**) then the telephone number. Note that you do not enter the telephone number in the SEQUENCE TO INITIATE A TRANSFER field, since the VP system gets the telephone number from the TRANSFER TO field of the mailbox's MAILBOX screen.
12. In the field SEQUENCE TO COMPLETE A TRANSFER, enter the sequence of actions you performed in step 7. The VP system dials this sequence, then hangs up to complete the transfer. If you simply had to hang up to connect Party A to Party B, then leave the SEQUENCE TO COMPLETE A TRANSFER field blank.
13. Determine the steps necessary to cancel the transfer if the called station is busy or does not answer and return to the calling party. Enter this information in the SEQUENCE TO RETURN FROM BUSY and SEQUENCE TO RETURN FROM NO ANSWER fields. Typically, this is a hook-flash (!) and a pause (,).
14. Now that the VP system knows how to transfer calls on the telephone system, test the system again. It is recommended that you connect a monitoring device to the line, so you can hear exactly what the VP system hears during the transfer.

If the VP system gets as far as ringing the Party B telephone but does not connect the call or the call is connected even though the line was busy or no one answered, the problem is that the VP system does not recognize the ringback tone and busy tone on the telephone system. Refer to section 13 for information on how to train the VP system to recognize these tones.

Troubleshooting Unsuccessful Call Attempts

A *successful* call transfer as defined here occurs when the called party answers his/her phone and is connected to the calling party. An *unsuccessful* call transfer occurs when the called party's phone is busy or the phone rings but goes unanswered. In these circumstances, the calling party is to be handled as you have specified during system setup. Troubleshooting techniques provided here address situations involving:

- Calls to ring-no-answer stations using the transfer type of WAIT FOR RING
- Calls to busy and/or ring-no-answer stations using the transfer type BLIND.

In these cases, the VP system drops out of the call before confirming an answer. It is the responsibility of the telephone system to return the calling party to the voice mail system. Troubleshooting this function depends upon the method being used to return the caller to the VP system:

- **Transfer re-call timer**—This is usually the least desirable method to return unsuccessful calls to voice mail. The calling party can usually only return to the system initial greeting and usually returns to the exact port on the VP system that initiated the transfer. Problems usually arise when another call is in progress on that port at the time that the re-call occurs. If the telephone system is unable to queue the returning call, then the calling party hears a busy signal. In these scenarios, the only option is to disable the re-call feature in the telephone system, or extend the timer to its maximum.
- **Call forwarding without voice mail integration**—If the telephone system does not have voice mail integration capabilities but does offer the call forward on busy and/or no-answer feature, you can still take advantage of many VP system features. If this method is not functioning properly, check the following:

- Is the VP system configured with a sufficient number of ports to handle the volume of both new calls and calls forwarded by a busy/ring-no-answer condition?
- Are the system telephones programmed to forward to the *lead* or *pilot* number of the voice mail hunt group?
- Are callers to busy/ring-no-answer stations to receive a unique greeting (other that the main initial greeting)? If so, you must have dedicated VP system ports (connected to station ports in a separate hunt group) that are programmed (on the LINE INFORMATION screen) to answer with the proper greeting.

Call Forwarding Using Voice Mail Integration with In-Band Signaling

1. More information on troubleshooting voice mail in-band signaling is provided in section 7.13. A few basic steps are outlined here:
2. Verify the exact sequence of DTMF tones sent by the telephone system for both the busy and ring-no-answer conditions.
3. Determine if the in-band DTMF tones are sent by the telephone system immediately upon answer by the VP system or whether there is a delay. If there is a delay, how long is it?
4. Check the programming of the INITIAL PAUSE on the OTHER CUSTOMIZATIONS screen (DOS systems) / PAUSE FOR X SECONDS on the PBX INFORMATION screen (WIN systems). The pause time may not be long enough to accommodate the receipt of tones.
5. Check the programming of the transfer bypass feature.
6. Review the contents of the digit translation table TRANS.TXT (section 7.13).

7.4 Setting Up ACD/Enhanced Customer Service Groups

If the telephone system does not support Automatic Call Distribution (ACD) groups, you can use the VP system to provide a form of this functionality.

You can define as many ACD groups as necessary, and you can chain ACD groups together. If all extensions in a group are busy, the VP system can re-route the call, take a message, offer alternatives, or place the call on a queue, playing specific messages for each queue position.

An administrator can add participants to the ACD group or remove participants from the group via his/her telephone. This allows the administrator to dynamically re-allocate employees as required (for example, people in the Sales ACD group can be easily moved to the Order-Taking ACD group by making one call into the system).

Each ACD group is created using an ACD box (VP system versions 10.0 and lower) / Customer Service box (VP system versions 10.1 and higher). See section 5.10 for information on setting up an ACD box / Customer Service box. Since there are several options for the ACD box / Customer Service box, this section describes how the ACD feature typically operates.You can also allow each member of the ACD group to log in and out of the group as required.

Setting up Enhanced Customer Service Integration

Starting with VP system version 10.1x, with certain phone systems, the VP system can provide Enhanced Customer Service integration features. As of VP system version 10.3, Enhanced Customer Service integration:

- Allows you to specify on CUSTOMER SERVICE BOX screens that call hunting is to start from the longest idle extension
- Allows the VP system to identify non-idle agent extensions before attempting a call transfer (speeding call processing)
- Provides LCD display of queue statistics on agent telephones
- Allows agents to log into and out of a Customer Service group via the LCD controls on their phone
- Provides a configurable length of "wrap-up" time after each call, so upon hang-up, an agent's extension will remain idle so the agent can complete additional call processing tasks.
- Provides CS Desktop Agent to give desktop access to the same agent controls and queue status currently displayed on the Enhanced Customer Service Box agent telephone set display. With CS Desktop Agent, agents using a non-display telephone can access Enhanced Customer Service Box functionality on their PC monitor.

In addition, an optional Enhanced Customer Service Reports package provides real-time and historical trending reports of call activity and group/agent performance. As of release 10.3, Enhanced Customer Service Reports include:

- Customer Service Status Display
- Customer Service Group Report
- Group Summary Report
- Detailed Group Report
- Agent Performance Report
- Abandoned Calls Report
- Abandoned Calls–Detail Report

For information on setting up Enhanced Customer Service integrations on phone systems that support it or for information on Enhanced Customer Service Reports, consult the *Enhanced Customer Service Feature* product information bulletin.

7.4.1 Understanding ACD Group Operation

Note:	The **ACD box** is referred to as the **Customer Service box** in VP system versions 10.1x and higher.

When a call is routed to an ACD box / Customer Service box, the VP system checks to see if anyone else is queued for that ACD group. If so, the VP system places the caller at the end of the queue.

If no one else is queued for the ACD group, the VP system attempts to transfer the call to the first extension in the group. If the extension is free, the VP system releases the call to that extension and is finished with the call. If the extension is busy, the VP system tries the next extension, then the next, etc.

> **Note**: After determining that an extension is busy, the VP system pauses for one second before trying the next extension. This pause allows the system to detect error tones, disconnect tones, etc. If you want to give the VP system more time to detect these tones, adjust the ACD PAUSE time in the configuration file VM.CFG (see section 12).

If no extensions are free, the VP system puts the call in a queue.

7.4.2 Putting a Call in the Queue

When the VP system finds that all extensions are busy, it puts the call in a queue and informs the caller:

"All agents are busy. You are number [number] in line. If you would like to try a different extension, press 1. Or press 0 if you would like to speak with the operator."

If the caller chooses option 1, the VP system looks at the ACD BOX / CUSTOMER SERVICE BOX screen and performs the option specified in the field IF CALLER DOES NOT WANT TO REMAIN IN QUEUE.

If the caller chooses option 0, the VP system looks at the ACD BOX / CUSTOMER SERVICE BOX screen, and routes the call to the box specified in the field OPERATOR BOX (DAY) or OPERATOR BOX (NIGHT).

If the caller does not press a digit, the VP system assumes the caller wants to remain in the queue, and it plays a series of pre-recorded announcements, as described in the next section. While the call is in the queue and the caller is listening to the pre-recorded announcements, he/she always has the option to press 0 or 1 as described above.

7.4.3 Playing Announcements to Queued Calls

While the call is in the queue, the VP system plays a series of pre-recorded announcements to the caller. The system looks for these announcements in two places:

- If the announcements have been recorded for this ACD box / Customer Service box (see section 5.10), then the VP system uses these announcements.
- If no specific announcements are recorded for this ACD box / Customer Service box, the VP system plays a generic music-on-hold prompt (prompt 146). You may record up to 100 different hold prompts.

The VP system plays each announcement in turn. When it reaches the last recorded announcement, it goes back to the first one and repeats the cycle.

At the end of each announcement, the VP system checks to see if this caller is first in the queue:

- **If the caller is first in queue—**The VP system tries the extensions again, looking for one that is free. If there are no free extensions, the VP system informs the caller of his/her position in the queue and offers the options again:

"All agents are still busy. You are number one in line. If you would like to try a different extension, press 1. Or press 0 if you would like to speak with the operator."

- **If caller is not first in queue—**Once the VP system has played a pre-defined number of announcements, it informs the caller of his/her position in the queue and offers the options again:

  "All agents are still busy. You are number [number] in line. If you would like to try a different extension, press 1. Or press 0 if you would like to speak with the operator."

If the caller does not press any digit, the VP system assumes that he/she wants to remain on hold and the cycle continues another rotation.

When the VP system goes back to the caller for the sixth time, informing him/her of his/her position in the queue, it tells the caller that he/she must enter a digit to remain in the queue.

"All agents are still busy. You are number [number] in line**.** If you wish to remain on hold, press 2. If you would like to try a different extension, press 1. Or press 0 if you would like to speak with the operator."

If the caller does not press a digit, the VP system assumes the caller does not want to remain on hold and performs the action specified on the ACD BOX / CUSTOMER SERVICE BOX screen in the field IF CALLER DOES NOT WANT TO REMAIN IN QUEUE. This functionality is designed as a safeguard, moving the call onward and eventually freeing the port in the event the caller has hung up, and the telephone system does not offer a reliable disconnect signal.

Note:	If you want the VP system to always assume that the caller wants to remain in the queue, add the following line to the configuration file VM.CFG (see section 12): ASSUME HOLD = 99

7.4.4 Logging In and Out of an ACD Group

Logging in to an ACD group adds an extension to that group, so the VP system will try to send ACD calls to that extension. If an extension is logged in to an ACD group, it displays in NUMBERS field on the ACD BOX screen (see section 5.10).

Logging out of an ACD group means removing an extension from that group, so the VP system will not try to send ACD calls to that extension. If an extension is not logged in to an ACD group, it does not display in the NUMBERS field shown on the ACD BOX screen (see section 5.10).

Note:	If the VP system is set up to use enhanced ACD integration fields, the functionality of the NUMBERS field varies from that described above. See section 5.10 for details.

To add or remove an extension to or from an ACD box / Customer Service box:

1. Call in to the VP system.
2. Log into the mailbox that is the owner of the ACD box / Customer Service box to be modified.
3. Choose option 3 from the Main menu.
4. Choose option 0 from the Options menu.

5. Choose option 1 from the ACD group administration menu.
6. Enter the ACD box / Customer Service box number.
7. Enter the extension number.
8. Press 1 to add the extension to the ACD group, or press 2 to remove the extension from the ACD group.
9. Listen to the confirmation, and hang up.

You can shorten this procedure using the database lookup feature (see section 7.15). By setting up an ACD database lookup application, you can provide each member of the ACD group with a specific ID number he/she is to enter to log in and log out of the call rotation. The following procedure illustrates how you set up this application:

Assume there are 5 extensions that are members of ACD group 4444. The extension numbers are 100, 101, 102, 103, and 104.

1. Create a mailbox to be the owner of ACD box / Customer Service box 4444. Assume this is mailbox 2000.
2. Enter 5678 as the password for mailbox 2000.
3. Call in to the VP system, and open mailbox 2000. When the tutorial starts, disable it by pressing *.
4. Hang up.
5. Display ACD box / Customer Service box 4444 on the VP system screen, and go to the field OWNER. Enter 2000 in this field. Mailbox 2000 is now the owner of ACD box / Customer Service box 4444.
6. Create a Routing box, box 2001 in this example. This box will serve as the database lookup box.
7. Display Routing box 2001 on the VP system screen. In the NAME field, enter the name of the file that will house the lookup information, ACDLOGON.DAT in this example.
8. In the field ROUTE DIGITS BASED ON, choose DATABASE LOOKUP.
9. Record a short greeting for Routing box 2001.
10. Using a text editor program, create a text file named ACDLOGON.DAT. For this example application, the contents of the file are as follows:

```
default=800, not found=800
100*,9992:2000,5678,3,0,4444,1,100
1009,9992:2000,5678,3,0,4444,2,100
101*,9992:2000,5678,3,0,4444,1,101
1019,9992:2000,5678,3,0,4444,2,101
102*,9992:2000,5678,3,0,4444,1,102
1029,9992:2000,5678,3,0,4444,2,102
103*,9992:2000,5678,3,0,4444,1,103
1039,9992:2000,5678,3,0,4444,1,103
104*,9992:2000,5678,3,0,4444,1,104
1049,9992:2000,5678,3,0,4444,2,104
```

11. Return to the VP system.
12. In the initial Routing box, set the DESTINATION FOR DIGIT 8 field to route callers to box 2001.

Now ACD members can log into and out of the ACD group using a few simple keystrokes:

To log in:

- Call in to the VP system
- Dial 8, followed by the extension number, followed by a *

To log out:

- Call in to the VP system
- Dial 8, followed by the extension number, followed by a 9

7.5 Setting Up Paging

The VP system supports Tone, Digital, and Voice pocket-pagers. Each of these pagers work slightly differently. Each is programmed differently and has different operational options. Before setting up paging, collect the following information:

- Which of the three types of pagers will be used?
- When does each subscriber want to be paged (always or only at certain times)?
- Who is to control whether or not a mailbox owner is paged (the caller or the mailbox owner)?
- What process is involved to manually complete the page—what call-progress and other tones are heard, is a recorded message played?
- Is the process to manually complete a page always the same (do you always receive just 1 cycle of ringing tone before the pager service answers, or does it sometimes require a longer period)? Is the paging service number ever busy?

Note:	Unless you have your own pager service (a paging transmitter connected to an extension of the key system or PBX), the VP system places an external call to the paging service. For the pager notification feature to function properly, you must program the DIGITS TO GET A LINE FOR AN EXTERNAL CALL field on the GENERAL INFORMATION screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems), and define the parameter MAX INTERNAL in the VM.CFG configuration file (see section 12).

7.5.1 Setting Up Tone Pagers

Tone pagers are perhaps the easiest to program, since the relaying of other information (DTMF tone or voice) is not involved. Most of the time Tone paging involves simply dialing the pager service, waiting for answer, pausing a few seconds, then hanging up. Therefore, you may choose to program a Tone pager either in the PAGER NUMBER section or the MESSAGE DELIVERY section of each MAILBOX screen.

Programming Tone Pagers in the PAGER NUMBER Section

By programming the tone pager in the PAGER NUMBER section, you have the option of:

- Paging the mailbox owner with each new message left in his/her mailbox.

- Paging the mailbox owner only when the caller chooses the page option.
- Allowing the mailbox owner to call in to remotely change the pager number and turn the service on and off.
- Setting up a schedule to identify when the box owner is to be paged.

To program a Tone pager in the PAGER NUMBER section:

1. Select the MAILBOX screen.
2. Enter the telephone number of the paging service (You can change the number remotely: see section 6.6.) Normally, access codes for outside lines are not required here (see the note at the beginning of this section). If you want to restrict pager calls to use lines in a particular line group, enter the letter (A, B, C, or D) of the line group in braces { } before the telephone number (for example, {A}5551212, see section 7.16 for more information). Press <Enter>.
3. Select Tone as the PAGER TYPE. The pager type options are NONE, TONE PAGER, and DIGITAL PAGER.
4. Identify the number of times the VP system is to make *successful* calls to the paging service. The number of unsuccessful calls (for example, a call reaching a busy line) is determined by the parameter PAGER RETRY in the configuration file (see section 12). You may want to set this field to 2 or more times if, for example, the pager has "dead zones" and you want to ensure that the mailbox owner receives at least one of several pages.
5. If you set the previous field to 2 or more, identify the interval, or minutes between calls. This refers to *successful* pager calls. If a pager call is unsuccessful, the VP system automatically retries every few seconds.
6. Select the schedule of times the mailbox owner is to be paged. See section 5.5 for more information.
7. Set the ENABLED field to YES to turn the pager service on and set it to NO to turn the service off. This field can be changed from the PC keyboard or remotely by the mailbox owner (see section 6.6).
8. In the AFTER PLAYING GREETING field identify under what circumstances the mailbox owner is to be paged. Select one of the following options:

   Select PAGE IMMEDIATELY to indicate the mailbox owner is to be paged each time a new message is received in his/her mailbox. The mailbox owner's personal greeting should be recorded with wording such as:

   "This is [name]. I'm sorry I'm not available right now, but if you leave a message at the tone, I will be paged immediately and return the call."

   Select RECORD IMMEDIATELY, if you want to give the caller the option of paging the mailbox owner. The mailbox owner's personal greeting should be recorded with wording such as:

   "This is [name]. I'm sorry I'm not available right now, but you may leave me a message at the tone. If this is an urgent call, please press 2 now and I will be paged immediately."

   If the caller does not press 2, the VP system simply records his/her message. If the caller presses 2, the VP system records his/her message, then immediately begins the paging process.

- Select WAIT FOR DIGIT if you want to force the caller to choose an option. The mailbox owner's personal greeting should be recorded with wording such as:

"This is [name]. I'm sorry I'm not available right now. Press 1 to leave me a message, or press 2 to leave an urgent message and I will be paged right away."

If the caller does not press any digit, no message is recorded and no page is sent.

You can choose to offer any other valid option(s) to the caller in the greetings such as*:*

"...press 3 to return to the main menu, press 0 for the operator..." etc.

Programming Tone Pagers in the MESSAGE DELIVERY Section

By programming the Tone pager in the MESSAGE DELIVERY section, you have the option of:

- Paging the mailbox owner with each new message left in his/her mailbox.
- Paging the mailbox owner only when the caller chooses the page option.
- Allowing the mailbox owner to call in to remotely change the pager number (even to a telephone number) and turn the service on and off.
- Setting up a schedule to identify when the box owner is to be paged.

Specifying more than one pager number, or specifying both pager numbers *and* regular telephone numbers to increase the mailbox owner's chances of being reached with messages.

A major difference in using the MESSAGE DELIVERY section to activate pagers is that you *cannot* offer callers the option to page or to just leave a message. The option, *"Press 2 to have me paged"* applies only to a pager programmed in the PAGER NUMBER field.

Note:	The PAGER NUMBER fields and the MESSAGE DELIVERY fields are two independent VP system features. Before proceeding, see section 7.6 to familiarize yourself with the message notification feature.

To program a Tone pager in the MESSAGE DELIVERY section:

In the AFTER PLAYING GREETING field identify under what circumstances the mailbox owner is to be paged. Select one of the following options:

Select RECORD IMMEDIATELY, if you want the caller to simply begin recording at the tone. The mailbox owner's personal greeting should be recorded with wording such as:

"This is [name]. I'm sorry I'm not available right now, but you may leave me a message at the tone.

The VP system records his/her message.

Select WAIT FOR DIGIT if you want to force the caller to press 1 to leave a message. The mailbox owner's personal greeting should be recorded with wording such as:

"This is [name]. I'm sorry I'm not available right now. Press 1 to leave me a message.

If the caller does not press 1, no message is recorded.

The other after-greeting options are not valid when programming a Tone pager using MESSAGE DELIVERY.

Move the cursor to the first field of the MESSAGE DELIVERY section. This is the first of five CALL fields. You can place the telephone number of a Tone pager in any of these five fields, but the first field is the only one that can be changed remotely (see section 7.6).

When you use the MESSAGE DELIVERY section to call a Tone pager, the VP system dials the number and, when it detects an answer, it plays the system prompt, *"Message for [name]. Press 1 to listen to the messages."* The prompt repeats the number of times specified by the VM.CFG parameter NOTIFY REPS (see section 12). Since this call is being answered by a paging service and not a live person, we must depend upon the paging service to terminate the call. This is usually not a problem, but if you find that pager calls programmed in the MESSAGE DELIVERY section are holding the line until all of the prompt repetitions have played, you may need to force the disconnect by adding a few pauses followed by the letter H (for hang up) after the number in the CALL field. For example,

5551212,,,,,,H

In this example, the VP system dials the number, pause 6 seconds (the default value for 6 commas), then hangs up. Note, however, that the letter H can only be entered from the keyboard, and cannot be added to the pager number if it is changed remotely.

The guidelines for using line groups and access codes are the same as when you use the PAGER NUMBER field to program Tone pagers, as discussed in earlier in this section.**Note:**When using the MESSAGE DELIVERY section to page, the VP system is not listening for call-progress tones (such as ringing or busy tones) during the pauses before hang-up. Therefore, every call is considered a successful call, even if the pager service was busy or did not answer.

You can enter a different pager number in each of the five CALL fields. For example, if the company has an on-call technician, you may want him/her to be paged 3 times at intervals of 30 minutes for each new message received in his/her mailbox. You may enter his/her pager number in the first CALL field and his supervisor's pager number in the second CALL field.

If the on-call technician checks his/her messages and clears his/her mailbox of all new messages before his/her cycle of pages is complete, the supervisor is not paged. If he/she does not, the VP system proceeds with the next number on the list, the supervisor's number.

You can use a variation of this programming technique if there are two shifts of on-call technicians. You enter each of their pager numbers in the CALL fields, choose the number of times to repeat each page, then select a schedule from the pop-up menu in the SCHEDULE field. Each CALL number can be assigned its own schedule (see MAILBOX screen information in section 5.5).

Refer to section 7.6 for additional information on programming these fields.

7.5.2 Setting Up Digital Pagers

Unlike activating Tone pagers, activating Digital pagers is a two-step process—dialing the pager service, then sending DTMF tones. To program Digital pagers, you should use the PAGER NUMBER area on the MAILBOX screen. This area provides you with more parameters you can use to "fine tune" the paging operations. It is also possible to use the MESSAGE DELIVERY section of the mailbox to program Digital pagers. The programming and available options for each area are discussed in the following two sections.

Programming Digital Pagers in the PAGER NUMBER Section

By programming the Digital pager in the PAGER NUMBER section, you have the option of:

- Paging the mailbox owner with each new message left in his/her mailbox.
- Paging the mailbox owner only when the caller chooses the page option.
- Allowing the mailbox owner to call in to remotely change the pager number and turn the service on and off.
- Setting up a schedule to identify when the box owner is to be paged.
- Having the system prompt the caller to enter a callback number, which is relayed to the pager.
- Having the system ask the caller to leave the message, then having the mailbox number automatically sent as the callback number to the pager.

To program a digital pager in the PAGER NUMBER section:

1. Select the MAILBOX screen.
2. Enter the telephone number of the paging service (you can change the number remotely, see section 7.6). Normally, access codes for outside lines are not required here (see the note at the beginning of this section). If you want to restrict pager calls to use lines in a particular line group, enter the letter (A, B, C, or D) of the line group in braces { } before the telephone number. (For example, {A}5551212. See section 7.16 for more information.) Press <Enter>.
3. Windows-based VP systems: In the DELIVER THESE MESSAGES area, choose VOICE MESSAGES and/or E-MAIL MESSAGES and indicate whether all messages should be delivered to the pager or URGENT MESSAGES ONLY.

> **Note:** Pager notification of e-mail messages can only take place if the Mailbox owner is using the Dual Message store unified messaging feature (specified on the General tab of the Mailbox setup screen).

4. Select Digital as the PAGER TYPE. The pager type options are NONE, TONE PAGER, and DIGITAL PAGER.
5. Identify the number of times the VP system is to make successful calls to make to the paging service. The number of unsuccessful calls (for example, calls that reach a line that is busy) is determined by the VM.CFG parameter PAGER RETRY (see section 12). You may want to set this field to 2 or more times if, for example, the pager has “dead zones” and you want to ensure the mailbox owner receives at least one of several pages.
6. If you set the previous field to 2 or more, identify the interval, or minutes between calls. This refers to the number of *successful* pager calls. If a pager call is unsuccessful, the VP system automatically re-tries every few seconds.
7. Select the schedule of times the mailbox owner is to be paged. See section 5.5 for more information.
8. Set the ENABLED field to YES to turn the pager service on and set it to NO to turn the service off. This field can be changed from the PC keyboard or remotely by the mailbox owner (see section 6.6).
9. Move the cursor to the AFTER PLAYING GREETING field. Choose under what circumstances you want the mailbox owner to be paged and what information you want the callback number to contain. Select one of the following options:

- Select PAGE IMMEDIATELY if you want the VP system to prompt the caller to enter his/her callback number then page the mailbox owner each time he/she receives a call. The mailbox owner's personal greeting should contain wording such as:

"This is [name]. I'm sorry I'm not available right now, but if you leave the telephone number, I will be paged, and I'll call you back as soon as possible."

When the greeting ends, a system prompt plays requesting that the caller enter his/her callback number (no voice message is recorded):

"Please dial your own telephone number now."

Note:	If the VP system has collected an account number for the call, it offers to send the account number to the pager. For example, *"The number which will be displayed on the pager is 444-2345. If this is correct, press 1."* If the caller does not press 1, the system says, *"Please dial your own telephone number now,"* and it waits for the caller to enter the number.

When the caller has entered the number, the VP system repeats the number and asks for confirmation. For example:

"The number which will be displayed on the pager is 5551212. If this is correct, press 1. If not, press pound."

If the caller presses #, he/she is given a chance to enter the number again. If the caller presses 1, the VP system plays the prompt:

"That party will be paged right away."

If the caller does not press 1, the system default is not to send a page. If you want the system to send a page even if the caller does not press 1, you can enter the parameter ASSUME PAGE CONFIRM in the VM.CFG file (see section 12).

Select RECORD IMMEDIATELY, if you want to give the caller the option of paging the mailbox owner (with a call-back number, not a voice message). The mailbox owner's personal greeting should contain wording such as:

"This is [name]. I'm sorry I'm not available right now, but if you leave a message at the tone, I'll get back to you as soon as possible. If this is an urgent call, press 2 now and enter the telephone number. I will be paged immediately and call you right away."

If the caller does nothing, the VP system simply records his/her message, but does not initiate a page. If the caller presses 2, he/she is prompted to enter a callback number. The same sequence of accepting the digits, replaying them, and asking for confirmation (as described earlier) then follows.

Note:	If the VP system has collected an account number for the call, it offers to send the account number to the pager. For example, *"The number which will be displayed on the pager is 444-2345. If this is correct, press 1."* If the caller does not press 1, the system says, *"Please dial your own telephone number now,"* and it waits for the caller to enter the number.

- Select RECORD THEN PAGE if you want the system to take a voice message from the caller *and* page the mailbox owner. The mailbox owner's greeting should contain wording such as:

"This is [name]. I'm sorry I'm not available right now, but if you leave a message at the tone, I will be paged immediately and return the call."

The VP system records the caller's message as usual, but does not ask for the caller to enter his/her callback number. Instead, the account number collected during the call is used as the callback number, if an account number has been collected. If an account number was not collected, the mailbox owner's box number is sent as the callback number.

Select WAIT FOR DIGIT, if you want to force the caller to choose an option. The mailbox owner's greeting should contain wording such as:

"This is [name]. I'm sorry I'm not available right now. Press 1 if you would like to leave me a message. If the call is urgent, please press 2. I will be paged right away and return the call."

If the caller does not press any digit, no message is recorded and no page is sent.

You can also choose to offer any other valid option(s) to the caller in the greetings such as:

"...press 3 to return to the main menu, press 0 for the operator..." etc.

Additional Parameters for Digital Pagers

There are additional parameters available in the system configuration file VM.CFG you can use to configure the VP system to operate with the Digital paging service (see section 12 for details on programming). These apply only to pagers programmed in the PAGER NUMBER field, not to those set up in the MESSAGE DELIVERY section.

- CALL-PROGRESS TONE DETECTION

  Normally, the VP system monitors the line for busy tone and ringing tone when calling a pager service. In most circumstances at least one cycle of ringing tone is heard before the paging service answers. When the VP system recognizes that ringing has stopped, it assumes the paging service has answered, and it sends the callback DTMF digits. In some cases, the ringing tone is never heard or is heard only sometimes. In this case, you may need to disable call progress tone detection and substitute a timer, using the parameter PAGE TIME in the configuration file.

- PREFIXING THE CALLBACK NUMBER

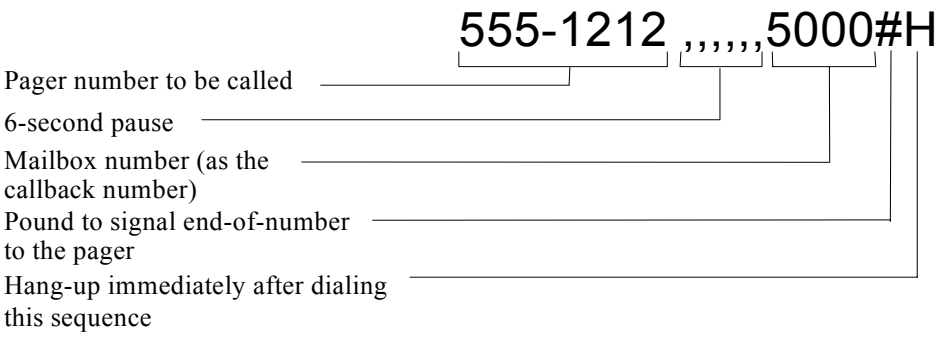
  This parameter allows the VP system to insert extra information automatically before the callback number. Usually additional digits are not required. However, if the paging service answers with a short recording (such as, *"Please enter the telephone number"),* you may need to add extra pauses before the callback number to prevent the VP system from sending the callback digits prematurely. Use the PAGER PREFIX parameter in the configuration file.

- APPENDING TO THE CALLBACK NUMBER

  If you need to automatically insert any additional digits (such as #) or pauses at the end of the callback number and before disconnect, use the PAGER APPEND parameter in the configuration file.

Programming Digital Pagers in the MESSAGE DELIVERY Section

You use the MESSAGE DELIVERY fields of the MAILBOX screen to program Digital pagers in much the same way as you use them to program Tone pagers. The one item you must add is a callback number (usually the mailbox number), since with Tone pagers, only a voice message is collected from the caller (no callback number is collected). A typical callback number sequence might be:


555-1212 ,,,,,,5000#H
Pager number to be called
6-second pause
Mailbox number (as the callback number)
Pound to signal end-of-number to the pager
Hang-up immediately after dialing this sequence

Note:	When using a dialing plan like that shown above, the VP system is not listening for call-progress tones (ringing or busy tones) during the long pause (L). Therefore, every call is considered a successful call, even if the pager service was busy or did not answer.

Keep in mind that a mailbox owner can change only the first of the CALL numbers remotely, and he/she cannot enter the H (hang up) character by calling in remotely.

For both the pager notification feature and the message delivery feature, if there are no free lines when the VP system tries to make the call to the paging service, the VP system keeps trying at 10-second intervals for about 10 minutes.

Again, remember that only paging programmed in the PAGER NUMBER field can detect a busy signal on the line after dialing the pager service. If the pager service is busy often during peak periods of the day, do not program paging in the MESSAGE DELIVERY section unless you program the page to repeat several times.

7.5.3 Setting Up Voice Pagers

Voice pagers cannot be programmed using the PAGER NUMBER field. They must be set up in the MESSAGE DELIVERY section. The programming for Voice pagers is discussed in section 7.6.

7.5.4 Setting Up a Schedule for Paging

When using either the PAGER NUMBER field or the MESSAGE DELIVERY section's CALL fields to program a pager, you can set up a schedule identifying when the mailbox owner is to be paged. The options include:

Schedule	Result
ALWAYS	The mailbox owner is paged with calls to this mailbox at all times.

DAY SERVICE	The mailbox owner is paged only during Day Service, as defined in the BUSINESS HOURS screen.
NIGHT SERVICE	The mailbox owner is paged only during Night Service, as defined in the BUSINESS HOURS screen.
SCHEDULE A, B, C, or D	The mailbox owner is paged only during the schedule as defined on the MAILBOX PAGE 3 screen (DOSVP systems) / by pressing the View Schedules button (WINVP systems).

7.5.5 Troubleshooting Pager Functions

Use the general steps provided below as guidelines for troubleshooting pager functions.

Pager Not Being Activated

1. Verify that the enabling field in the PAGER NUMBER or MESSAGE DELIVERY section is set to YES.
2. Verify the SEQUENCE OF DIGITS TO GET AN OUTSIDE LINE field on the GENERAL INFORMATION screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems) is correct and that the INTERNAL parameter in the VM.CFG file is correct.
3. Verify that the SCHEDULE you have selected is correct.
4. Leave a new message in the mailbox (choose the option to page if required).

   Monitor the LINE INFORMATION screen. The VP system should attempt to make the outgoing page call within a few seconds.

   Monitor the line with a DTMF digit display unit or a test set. The VP system should dial the same sequence as would a live person. This is typically a 9 (to get an outside line), a short pause, then a seven-digit pager number. If you do not hear the proper dialing sequence, re-check the data entry.
5. If the pager is programmed in the PAGER NUMBER field, verify that at least one cycle of ringing tone is heard before the pager service answers. If not, you must configure the VP system to not listen to call-progress tones. Do this using the PAGE TIME parameter in the VM.CFG file (see section 12).

Pager is Activated, But Callback Number is Missing or Incorrect

1. If you programmed the pager in the PAGER NUMBER field *and* you are using call progress tone detection, the VP system may be sending the callback digits too soon after the pager service answers. Use the PAGER PREFIX parameter in the VM.CFG file to insert the proper number of pauses before the callback number.
2. If you disabled call progress tone detection and are using only fixed timing parameters, verify that calls to the pager service use exactly the same time frame on every call. If so, you may need to adjust the entry for the PAGE TIME parameter.
3. If you are using a pager service that has required you to disable call progress tone detection and at some times it is possible that the pager service number is busy, then you must set the number of times to call to more than 1. (With call progress tone detection off, the VP system cannot detect busy and considers a call to a busy number as successful. By sending the page more than once, you increase the odds that the number is not busy.)

7.6 Setting Up Message Delivery

You can configure the VP system to call you when you have new messages in the mailbox. These calls can be placed to any telephone, to a telephone answering machine, or to a voice pager. The MAILBOX screen (see section 5.5) contains the fields you use to set up this feature.

To set up message delivery in a mailbox:

1. DOS-based VP systems: On the MAILBOX PAGE 2 screen, in the field CURRENTLY ENABLED, choose ALL MESSAGES or URGENT MESSAGES ONLY.

   Windows-based VP systems: On the MAILBOX screen, MESSAGE DELIVERY tab, in the DELIVER THESE MESSAGES area, choose VOICE MESSAGES and/or E-MAIL MESSAGES and indicate whether all messages should be delivered or URGENT MESSAGES ONLY.

Note:	E-mail messages can only be delivered if the Mailbox owner is using the Dual Message store unified messaging feature (specified on the General tab of the Mailbox setup screen).

2. In the CALL field, enter the telephone number the VP system is to call to deliver messages. There are 5 CALL fields, so you can specify up to 5 different numbers that the VP system is to attempt to deliver messages.
3. Set up the INTERVAL field and REPEAT field (DOSVP systems) / TIMES field (WINVP systems) as described in section 5.5.

Deciding When to Call

When a message is deposited into the mailbox, the VP system examines the information specified in the MESSAGE DELIVERY section to determine whether it should call out to deliver the message. Figure 7-3 How the VP System Decides When and Where to Deliver a Message shows how the VP system makes this determination.

Note:	The VP system can call 5 different telephone numbers, at different times (as specified on the MAILBOX screen). Each of these telephone numbers and time combinations is called a *rule*. When a message arrives in a mailbox, the VP system applies all 5 rules when determining which number to call.

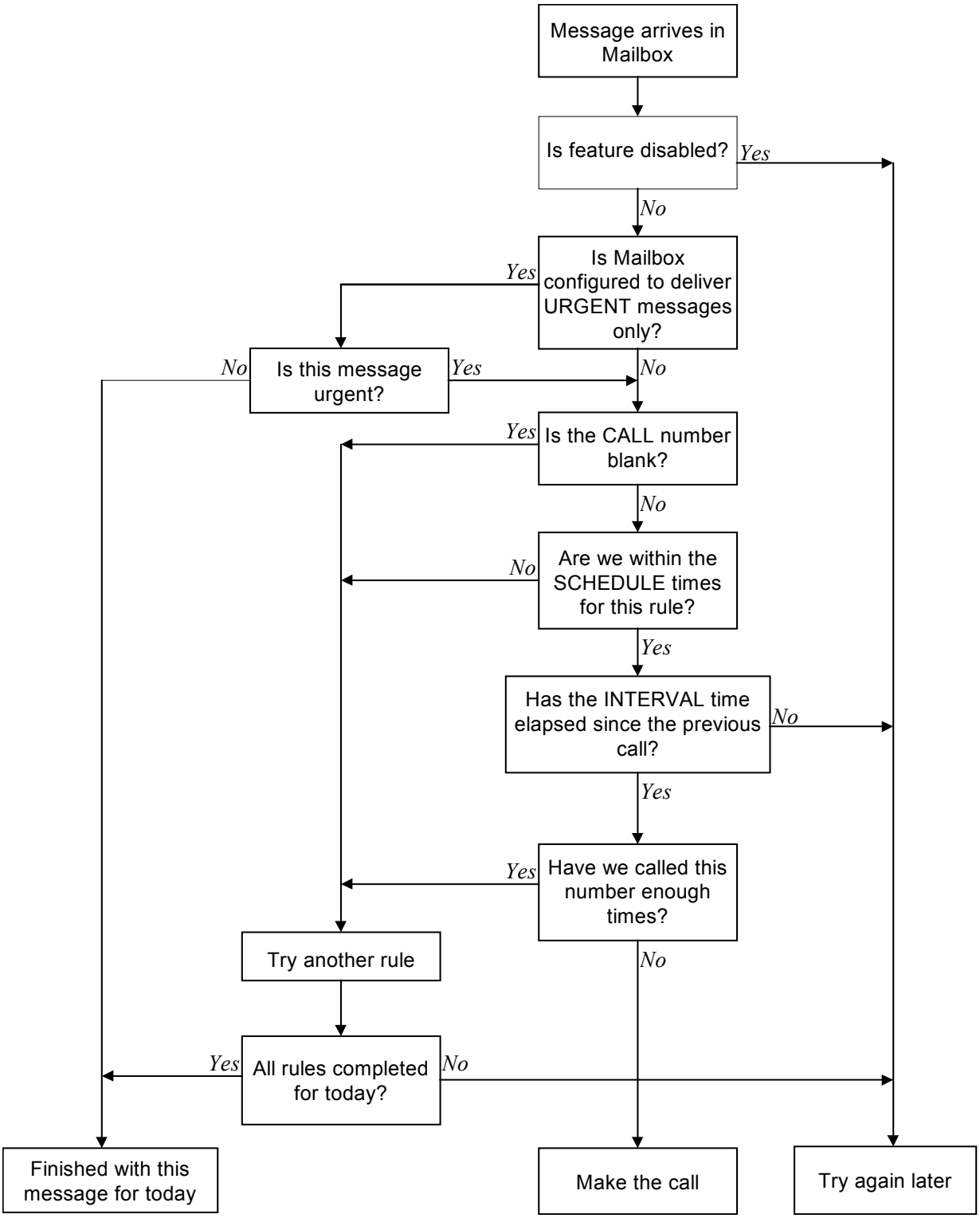


Figure 7-3 How the VP System Decides When and Where to Deliver a Message

Making the Call

When the VP system makes the call to deliver a message, it listens for an answer. As soon as it detects that the call has been answered, it begins repeating:

"Message for [name]. Press 1 if you would like to hear the messages."

> **Note:** At several places within the VP system, the caller is asked to press a certain key to confirm that a particular option is correct. (For example, when a caller enters a call-back telephone number to be sent to a digital pager, the VP system repeats the number to the caller and asks him/her to press a particular digit to confirm that the number is correct.) By default, the confirmation digit is 1, and any other digit means NO. You can change this to allow any other digit to mean YES or any one of a group of digits to mean 'Yes.' To do this, access the field DIGITS THAT MEAN YES WHEN ASKING FOR CONFIRMATION on the CALL TRANSFER SCREEN (DOSVP systems) / GENERAL INFORMATION screen (WINVP systems). Enter all digits you want the system to accept as a YES response.

The VP system repeats this announcement 5 times, then hangs up. You can change the number of times the VP system is to repeat the announcement in the VM.CFG file (see section 12).

If the called party presses 1, the VP system asks for the mailbox password to verify that it is the mailbox owner who answered the call. After the mailbox owner enters the password, the VP system voices a prompt such as:

"You have 2 new messages and 3 old messages.
To listen to the messages, press 1.
To send a message, press 2…"

The owner can now press 1 to listen to his/her new messages.

When setting up message delivery, if you include **M** (for answering machine) as the last character in the telephone number, the VP system plays the prompt, *"Message for..."* the specified number of times, then starts playing back each message in turn *without* requiring a password.

If you include **V** (for voice pager) as the last character in the telephone number, the VP system begins playing the message immediately upon detecting an answer.

> **Note:** If the mailbox owner is using a voice pager, he/she should advise callers of the time limit allowed for voice pages in the mailbox's personal greeting. This limitation is typically 10 - 15 seconds.

In some instances, you may use the message delivery feature to transfer a message in the voice mailbox on one VP system into a mailbox on a different VP system. This allows you to set up capabilities similar to those provided by the automatic message forwarding feature, but between two different VP systems at two different sites. To set up the message delivery to do message transfers to a second VP system, set up the telephone number dial string to:

- Dial the telephone number of the second VP system.

- Pause the required amount of time for the second system to answer.
- Dial the number of the receiving mailbox.
- Dial *****, *****, **1**, **1** to bypass the mailbox personal greeting and go straight to the beep for recording.
- Include one "handshake character," such as the letters **A,** to obtain acknowledgement from the second VP system that the message can be transferred. You must include the parameter MESSAGE HANDSHAKE = A (or whatever characters you choose) in the VM.CFG file. See section 12 for details.
- Include a **V** (as the last character) so the originating VP system begins playing the message.

By including the handshake character before the **V** as the second to last character in the telephone number, the VP system waits for confirmation from the receiving system before playing the message. If it does not receive confirmation, the number is retried at the intervals specified. Once the message is played from the originating box to the receiving box, it is stored as a New message in the receiving box (until it is accessed by the receiving mailbox's owner) and as a Saved message in the originating box (until it is either deleted or saved as a new message by a originating mailbox's owner).

Message Delivery to an E-mail Address

Starting with software Release 10.4 of the Window-based VP system, you can also use the Message Delivery feature to send an e-mail notification to Mailbox owners when they receive new voice mail messages. You can enter up to 5 e-mail addresses, one in each Call field, to have the VP system send an e-mail notification to each e-mail address. (If you enter a subject in the E-MAIL SUBJECT field, the message delivery feature will use that subject when it delivers the notifications.)

Note:	If you enter an e-mail address in this field, the VP system will attempt delivery one time only at the interval you specify. If the e-mail address is incorrect or the e-mail notification does not reach its destination for any reason, the system will not make another attempt. As a workaround, you can enter the same e-mail address in more than one CALL field, setting a different interval for each. In this case, however, the e-mail inbox may receive multiple notifications for the same message.

7.7 Working with Service Modes

You can set up the VP system to handle calls differently after office hours and on weekends by setting up the BUSINESS HOURS screen.

On the screen enter the opening time, closing time, and lunch times of the business for each day of the week. Enter each time in 24-hour format (for example, enter 8:00 PM as 20:00).

If the business is open 24 hours on a particular day, enter 0:00 as the DAY SERVICE BEGINS time and 24:00 as the DAY SERVICE ENDS time.

If the business is closed all day on a particular day, enter 0:00 as both the DAY SERVICE BEGINS and DAY SERVICE ENDS time. The VP system stays in Night Service mode that entire day.

You can use the Lunch Service period as a true lunch hour (for example, noon to 1:00 PM) or as a different day part (for example, a second shift from 5:00 PM to 11:00 PM). This is described later in this section.

When the VP system answers an incoming call, it consults the LINE INFORMATION screen to determine which initial box to use. If the system is in Day Service mode, the VP system directs the call to the box specified in the INITIAL BOX - DAY SERVICE column for the particular line. During Lunch Service mode, the call is directed to the box specified in the INITIAL BOX - LUNCH SERVICE column for the particular line.

All times *not* defined on this screen as being part of the Day Service mode or Lunch Service mode are, by default, considered to be Night Service mode.

The time lines in Figure 7-4 Two Uses for Lunch Service show two typical uses of BUSINESS HOURS screen programming.

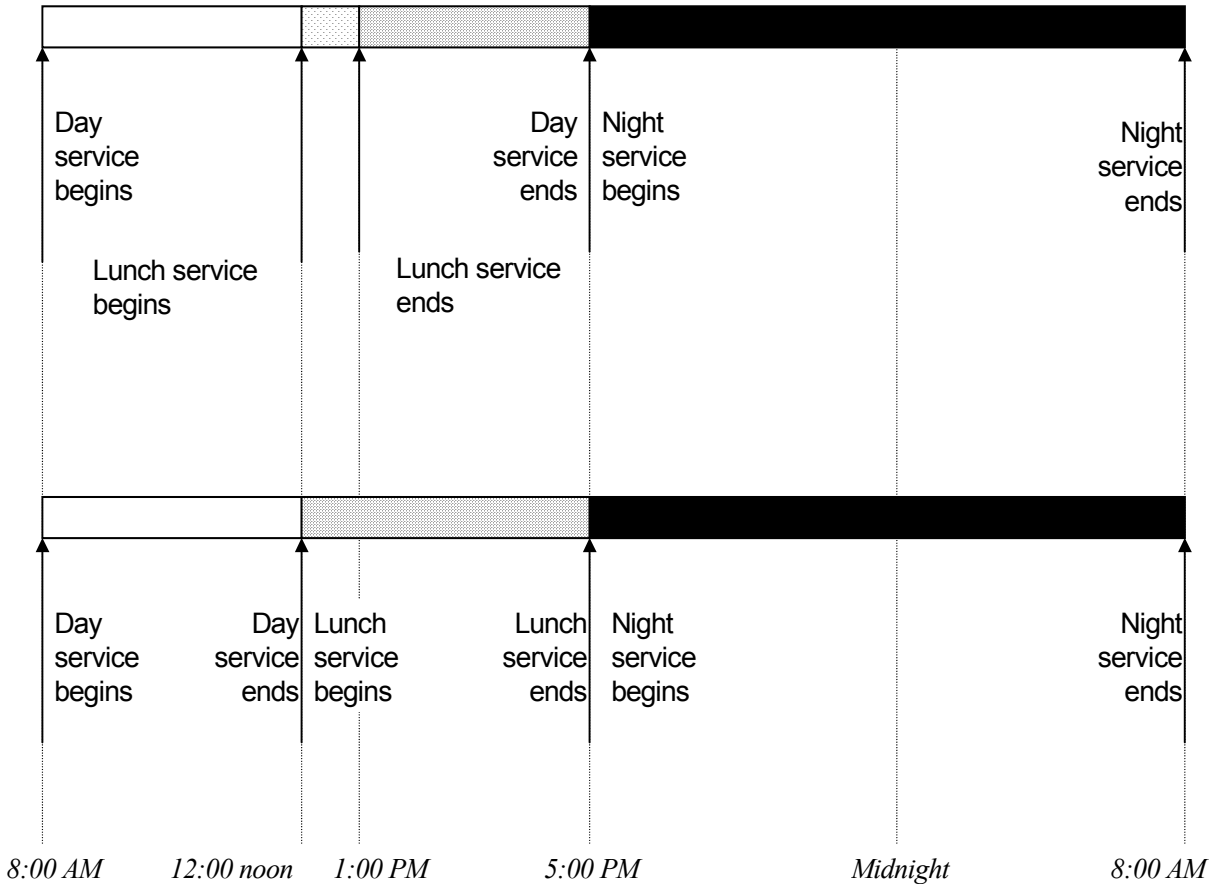


Figure 7-4 Two Uses for Lunch Service

The top time line illustrates a typical use of the BUSINESS HOURS screen for a business that opens at 8:00 AM, closes between Noon and 1:00 PM, then is open again from 1:00 PM to 5:00 PM. A caller hears the same initial greeting during the morning and afternoon open hours, a "closed for lunch greeting" during the noon hour, and a "closed for the day" greeting at night.

The bottom time line illustrates an alternate method of using the BUSINESS HOURS screen, setting up 3 separate time periods throughout the day. A caller receives one greeting from 8:00 AM until Noon, a second greeting from Noon to 5:00 PM, and a third greeting from 5:00 PM until 8:00 AM.

In either case, you define which greeting is to play by selecting an Initial box (usually a Routing box) for each line during each time period and recording the greeting in each of those boxes. Select the Initial box on the LINE INFORMATION screen.

Independent of this programming, you can set up the VP system to automatically insert an appropriate day period announcement before the greeting in the initial box is played ("*Good morning," "Good afternoon," or "Good evening*"). These phases are system prompts 171, 172, and 173 and are *not* pre-recorded. If you want to use any or all of them, they should be recorded by the same person that you use to record the greeting in the Initial box. See section 15.

You can select a time when the VP system should switch from the *"Good afternoon"* prompt to the *"Good evening"* prompt (the *"Good morning"* prompt time is fixed to play between Midnight and Noon).

Supervisor Control of Day and Night Service

A system supervisor can override the regular Day Service, Lunch Service, or Night Service mode by forcing the VP system into another mode. The VP system switches to the new service mode and remains in that mode until it is time for the system to automatically switch out of that mode and into another. For example, assume that Day Service mode runs from 8:00 AM until 5:00 PM and Lunch Service mode runs from noon until 1:00 PM. If the supervisor calls in at 9:00 AM (the VP system is in Day Service mode) and forces the VP system into Night Service mode, the VP system remains in Night Service mode until noon. It then automatically switches to Lunch Service mode.

For information on how a supervisor can override the Day Service and Night Service modes, see section 7.11.

7.8 Announcing a Call Over the Public Address System

When a call is routed to a mailbox, the VP system attempts to transfer the call. If the called party does not answer, or is busy, the VP system plays the mailbox owner's personal greeting (or the default greeting if none is recorded). An example of a personal greeting is:

"*Hi this is John. Sorry I missed the call. Leave me a message after the tone, and I will get back to you as soon as possible."*

At this point, you can give the caller the option to have the call announced over the company's public address (P.A.) system (also referred to by some as a *paging* system). A caller can elect to have the party paged by selecting option 5 while listening to the mailbox greeting. A mailbox owner who wants to provide callers with this option should inform the caller of its availability in the mailbox's personal greeting. For example:

"...If you would like to have me paged over our PA system, please press 5..."

The class of service assigned to the called party's mailbox must allow access to the P.A. system for callers to be able to use this feature. If the caller presses 5 to have the mailbox owner paged over the P.A. system (and the class of service assigned to the mailbox permits access to the P.A. system), the VP system:

1. Places the caller on hold.
2. Dials the P.A. system.
3. Announces the call.
4. Goes back to the caller and ask him/her to wait a moment.
5. Transfers the call to the mailbox owner's extension.

The called party can now pick the call up from his/her extension by going to the actual extension or, if available on the telephone system, performing a "directed call-pickup."

To set up the P.A. feature on the VP system, you must enter the following information about the P.A. system:

- The sequence the VP system needs to dial to place the caller on hold, and call the P.A.
- If the P.A. is busy, the sequence dialed by the VP system to get back to the caller to inform him/her
- After the P.A. system has answered, and the call has been announced, the sequence the VP system dials to get back to the caller to inform him/her

You enter the dialing sequences to perform these functions in the VM.CFG, under the parameters PA.INIT, PA.BUSY, and PA.CANCEL, respectively. See section 12.

When the P.A. system answers, the VP system voices says:

"There is a call [name]. Please dial the pick-up code for your extension."

This prompt repeats this announcement a pre-defined number of times, then transfers the call to the extension number. The number of times the VP system repeats the prompt is 3 by default. You can change this number by modifying the parameter P.A. REPEATS in the VM.CFG file.

The paged party can go to his/her telephone and wait for the VP system to re-transfer the call or he/she can wait a few moments *after* the page has completed (to give the VP system time to re-transfer the call), then dial the code for a directed call pick-up.

If the called party does not answer the page, the caller is re-directed to the called-party's mailbox where the caller can leave a message, try another extension, etc.

Some telephone systems also offer a "call park" feature. With call parking, the paged party can dial the pick-up code to retrieve a parked call *before* the page has completed. If call parking is not available, the paged party must wait until the paging completes and the VP system has transferred the caller back to the paged party's telephone.

A disadvantage of call parking, however, is that with most telephone systems, if the page is not answered, the calling party recalls to the main greeting, not the mailbox owner's personal greeting.

If you use the call park feature, reserve the park location exclusively for the VP system. Also re-record prompt 152 to instruct the paged party how to answer the parked call. (Consult the telephone system documentation and see section 4.12.)

Call parking involves the following sequence of events:

- The caller is placed in call park.
- The VP system dials the P.A. system and announces the call the required number of times.
- The VP system hangs up, completing the process.

The paged party either answers the page by dialing the call park retrieval code or does not answer. If the called party does not answer, the caller is returned to the main VP system greeting by the park recall timer.

You program steps 1 and 2 using the VM.CFG parameter PA.INIT. Step 3 is controlled by the parameter P.A. CANCEL. Since in most cases, this step involves simply hanging up, you simply specify the parameter as `PA.CANCEL = H` (H indicating hang-up).

Finally, specify an entry for the parameter P.A. BUSY. Your entry should indicate the sequence the VP system must dial to return to the caller in the event the call park location is busy.

> **Note:** Before programming the paging parameters in VM.CFG, connect a single-line telephone set or a test set to one on the voice mail ports and test the sequences described above. Make notes on each step you must perform (what you dial to put the caller on hold, what do you dial to access the P.A. system, etc.). See section 12 for a list of the special characters available when you specify these sequences.

If you are not using the PA feature, it is recommended you disable the PA feature completely. To do so, enter the following line in the VM.CFG file:

MENU.MBOX.PA = X

Once the P.A. call announcing feature is disabled, if a caller presses 5 during the mailbox greeting, the VP system takes whatever action you specified in the field IF CALLER CHOOSES OTHER OPTIONS on the MAILBOX screen.

7.9 Setting Up Call Queuing

This section discusses call queuing as it relates to calls transferring to a mailbox with a busy extension. For information on how calls are queued for ACD groups, see section 7.4.

The call queuing feature is available to mailboxes using the WAIT FOR ANSWER, WAIT FOR RING, and SCREEN transfer types. It is not available to mailboxes using the transfer type BLIND.

When call queuing is set up for a mailbox, if the VP system tries to transfer a call to the mailbox's extension, and that extension is busy, the VP system offers the caller the option to hold (provided the number of lines already holding for the extension has not reached the limit specified in the class of service assigned to the mailbox). The caller hears a prompt such as:

If the caller selects the option to leave a message, the VP system plays the mailbox greeting and processes the call in the normal manner. If the caller chooses to try another extension, the VP system takes the action specified in the IF CALLER CHOOSES OTHER OPTIONS field of the mailbox's MAILBOX screen.*"[Name] is busy. You are number [number] in line. If you would prefer to leave a message, press 1, or to try another extension, press 3."*

If the caller does not press a digit, the VP system assumes that he/she wants to remain on hold. The system plays a short recording, which is the system hold prompt 146. You may record up to 100 different hold prompts. At the end of each recording, the VP system checks to see if this caller is first in line for the called extension. If so, the VP system tries calling the extension again to see if it is still busy.

If the extension is now free, the VP system transfers the call in the normal manner. If the extension is still busy, the VP system keeps playing the hold prompts and re-trying the extension up to a predefined number of times. This number is defined in the class of service assigned to the mailbox in the field TRY EXTENSION X TIMES BEFORE GOING BACK TO CALLER. Once the VP system reaches the predefined number of times, it goes back to the caller and says:

"[Name] is still busy. You are number [number] in line. If you would prefer to leave a message, press 1, or to try another extension, press 3."

If the caller selects to remain on hold, the VP system resumes playing the hold-prompts, and the cycle repeats. If multiple hold prompts are recorded on the system, the caller hears each prompt in turn until all prompts have all played, then the cycle begins again with the first hold prompt.

Note:	While the caller is listening to any of the hold prompts, he/she can press a valid key at any time to leave a message, try another extension, speak to an operator, etc. See section 5.5 for the complete list of options. You also can limit the number of options available to the caller while he/she is in the hold queue by modifying the field DIGITS ALLOWED WHILE HOLDING in the class of service assigned to the mailbox.

When the VP system has gone back to the caller the sixth time, it asks the caller to press the digit 6 if he/she wishes to remain on hold:

"[Name] is still busy. You are number [number] in line. If you wish to remain on hold, press 6. If you would prefer to leave a message, press 1, or to try another extension, press 3."

This time, if the caller does not press a digit, the VP system does *not* assume that he/she wants to hold. Instead, it removes the caller from the queue and plays the mailbox greeting. The system uses this call handling technique to guard against the possibility that the caller hung up while on hold and the hang up was not detected. You can modify the point at which the VP system transfers the call to the mailbox greeting by adjusting the ASSUME HOLD parameter in the VM.CFG file (see section 12).

Note:	You can disable the call queuing feature for a particular mailbox by indicating that zero lines are allowed to hold for the mailbox in its assigned class of service (see section 4.10).
Note:	You can prevent the system from announcing a caller's position in the queue (for example, *"You are number 2 in line"*) by adjusting the field ANNOUNCE QUEUE POSITION? in the class of service assigned to the mailbox (see section 4.10).

For more information on call queuing, also refer to:

- The NUMBER OF LINES ALLOWED TO HOLD field and NUMBER OF RE-TRIES BEFORE RETURNING TO CALLER fields (DOSVP systems) / TRY EXTENSION X TIMES field (WINVP systems) on the CLASS OF SERVICE screen.
- Section 15 for information on optional pre-recorded system prompts and the system hold prompts.
- Section 4.11 for information on customizing system prompts.

7.10 Viewing VP System Status Screens

7.10.1 Understanding the Line Status Screen (DOS-based VP Systems)

When the Line Status screen is displayed, you can perform several actions. These actions and their associated keys are summarized in Table 7-2 Keys Available on Line Status Screen and described in more detail below.

Key	Function	Description
ESC	Exit	Exits the VP system program.
PgUp	Next mailboxes	Displays the next 50 mailbox / messages.
PgDn	Previous mailboxes	Displays the previous 50 mailbox / messages.
F1	Help	Displays Help information.
F2	Disconnect	Disconnects the specified line.
F3	Change display	Changes the display: Logo -> Messages -> Calls.
F4	Go offhook	Takes a line off-hook (for example, for testing).
F5	Previous 12 lines	Displays the status of the previous 12 lines.
F6	Next 12 lines	Displays the status of the next 12 lines.
F7	Reset counts	Resets the call counters to 0.
F8	*Not used*	
F9	*Not used*	
F10	Database	Access the VP system database.
Ctrl-F1	MW refresh	Refreshes all message waiting lamps.
Ctrl-F2	MW cancel	Cancels update of message waiting lamps.
Ctrl-F3	Reset	Resets a mailbox.
Ctrl-F4	*Not used*	
Ctrl-F5	Adjust clock	Moves the PC clock back 1 hour.
Ctrl-F6	Adjust clock	Moves the PC clock forward 1 hour.
Ctrl-F7	Adjust clock	Moves the PC clock backward 1 minute.
Ctrl-F8	Adjust clock	Moves the PC clock forward 1 minute.

Key	Function	Description
Ctrl-F9	*Not used*	
Ctrl-F10	Test	Generates a dummy error message, for testing.
Alt-F1	*Not used*	
Alt-F2	Trace to file	Sends diagnostic trace information to file TRACE.LOG.
Alt-F3	Trace to printer	Sends diagnostic trace information to a printer.
Alt-F4	Version info	Displays version information.
Alt-F5	Trace	Turns diagnostic trace on/off.
Alt-F6	Display memory	Shows the amount of free memory remaining.
Alt-F7 through Alt-F10	*Not used*	

Table 7-2 Keys Available on Line Status Screen

Exit to DOS <Esc>

Pressing the <Esc> key instructs the VP system that you want to exit the program. Before allowing you to exit, the VP system asks you for the database password. The default Technician password is **1234**. (Passwords are specified on the GENERAL INFORMATION screen).

The password can be entered in either upper or lower case. As you enter the password, the VP system displays an asterisk (*) for each letter you type. This prevents anyone from learning the password by watching the screen as you type. If you enter the password correctly, the VP system begins its clear-down sequence. The VP system does not answer subsequent incoming calls and waits for all existing calls to clear. When all calls have ended, the VP system exits to DOS. While waiting for the calls to clear, you can press <F10> to terminate the calls immediately.

Help <F1>

Pressing <F1> displays the Help screen. On some VP systems, you may notice that when the Help screen is displayed, the “beating heart” stops, and the on-screen clock is not updated. The system is still running normally; it is simply not updating the screen information. The clock and heart return to normal when you exit the Help screen.

Terminate the Call On One Specific Line <F2>

Pressing <F2> terminates the call on one specific line. When you press <F2>, the VP system asks you which line to disconnect. Enter the line number, then press <Enter> (or press <Esc> to cancel the request).

Change Display Mode <F3>

Pressing <F3> switches the display between the Logo screen, Message Status screen, and Incoming Call screen (also the Outbound Call Activity screen if you are using the optional Outbound Telemarketing module).

Taking a Line Off-Hook <F4>

Pressing the <F4> key takes a line off-hook (for testing, etc.). When you press <F4>, the VP system asks you which line to take off-hook. Enter the line number, then press <Enter> (or <Esc> to cancel the request). When the line goes off-hook, the greeting in the Initial box assigned to that line for the current time mode (Day Service, Night Service, Lunch Service) begins to play and proceeds just as if an incoming call was received on that line. You can terminate the call by pressing <F2> as discussed above.

Displaying Line Activity <F5> and <F6>

The VP system displays the activity for each line on the system, such as the box number being processed, the name of the box, and the current activity (for example, recording message, entering password, etc.). The VP system can display a maximum of 12 lines at one time. If you have more than 12 lines, you can view the next 12 by pressing <F6> or view the previous 12 by pressing <F5>.

Reset Call Counts <F7>

Pressing <F7> sets the call counters for all lines to zero.

Access the Database <F10>

Pressing <F10> informs the VP system you want to access the database (for viewing or programming). Before giving you access to the database, the VP system asks you for the database password. Note that there are two levels of password: The *Technician* password and the *Customer* password (DOSVP systems) or *Administrator* password (WINVP systems). The Technician password provides access to all database screens and fields. By default, this password is **1234**. Passwords are specified on the GENERAL INFORMATION screen.

The password can be entered in either upper or lower-case. As you enter the password, the VP system displays an asterisk (*) for each letter you type. This prevents anyone from learning the password by watching the screen as you type. If you enter a valid password, the VP system displays the Main menu.

Manually Activate Message Waiting Lamp Refresh <Ctrl-F1>

If the status of the telephone system's message waiting lamps has been disrupted (due to a power failure, for example), you can request that the VP system refresh the status for each mailbox that has message waiting on and off codes programmed. Pressing <Ctrl-F1> starts the process. A system advisory message displays to show that the request is being processed.

The refresh operation terminates automatically once the message waiting status for all mailboxes has been sent to the telephone system. You can manually terminate the process by pressing <Ctrl-F2>. Be advised that because this process can generate a high volume of outgoing calls, you should limit the use of this function to times of low incoming call traffic.

The message waiting lamp refresh can also be set to execute daily at a pre-determined time. See section 4.9 for details.

Resetting a Mailbox <Ctrl-F3>

Pressing <F3> informs the VP system that you want to reset a mailbox. If you press <Ctrl-F3> the VP system asks you which mailbox you want to reset. Enter the mailbox number, then press <Enter> or press <Esc> to cancel the request.

Resetting a mailbox triggers the following actions:

- All messages are deleted from the mailbox.
- The tutorial is enabled.
- All personal greetings are deleted.
- The password is reset to a default password (copied from the prototype mailbox).
- The mailbox is removed from the dial-by-name directory.

For more information on resetting the mailbox, see section 7.11.

Adjusting the PC Clock

- Use the following keys to adjust the PC's clock:
- <Ctrl-F5>—rewinds the clock 1 hour.
- <Ctrl-F6>—advances the clock 1 hour.
- <Ctrl F7>—rewinds the clock 1 minute.
- <Ctrl-F8>—advances the clock 1 minute.

Display Software Versions <Alt-F4>

You can display certain information about the software currently running in the system by pressing <Alt-F4>. An Advisory displays on the screen in the area below the Line Status area of the screen. The display contains the following information about the system:

- The VP system software version number, displayed, for example:**V:8.3**
- The release level of the version, displayed, for example:**R:2**
- The software level of the operating system, displayed, for example:**DOS:6.22**
- The software level of the voice board driver, displayed, for example:**H:5.38**
  - If the version is **4.xx** the system includes **Dialogic** boards
  - If the version is **5.xx** the system includes **Rhetorex** boards
  - If the version is **7.xx** the system includes **Rhetorex digital (IVPC)** boards

7.10.2 Viewing Available Line Status Screen Displays (DOS-based VP Systems)

The fields discussed below are common to all the screen displays. When the VP system is displaying the Line Status screen (the main screen), you can press <F3> to select 1 of 3 different displays:

- The VP system logo
- The Mailbox Status screen

- The Incoming Call Summary screen

Message-Space Remaining

The VP system calculates how much free space is left on the hard disk. It then calculates how many minutes of speech will fit in this space. The result is displayed on the screen. This figure is re-calculated and re-displayed every 60 seconds. If the amount of storage space remaining falls below 5 minutes, the VP system displays a warning message and makes a beeping sound every 30 seconds. If the amount of space remaining falls below 2 minutes, the VP system stops taking messages and advises callers that the system is full.

Activity on Each Line

The VP system displays the activity for each line on the system. The number in parentheses is the number of incoming calls received on that line since the counters were last reset. (You can reset the call-counters to zero by pressing <F7>.) The rest of the line displays information such as the box number being processed, the name of the box, and the current activity (recording message, entering password, etc.). If a line is disabled by a supervisor (see section 7.11), the status displays in bright flashing characters and a solid "block" symbol displays beside the line number.

7.10.3 Viewing the Message Status Display (DOS-based VP Systems)

This display lets you see at a glance which mailboxes have messages. If the system contains more than 50 mailboxes, you can scroll through the display using the <Pg-Up> and <Pg-Down> keys on the keyboard.

Each mailbox displays according to how many old and new messages it contains:

Display Screen Appearance	Number of New Messages	Number of Old Messages
Normal	None	None
Bright	None	1 or more
Flashing	Less than 10	
Reverse-video	10 or more	

7.10.4 Viewing the Incoming Call Summary Display (DOS-based VP Systems)

The Incoming Call Summary display shows the number of incoming calls answered by the VP system yesterday and today. Each vertical bar on the graph represents the number of calls answered for that hour of the day.

> **Note:** A flashing bar indicates that the number of calls received in that hour was greater than the maximum value on the vertical axis. This will never happen if you allow the VP system to adjust the vertical axis automatically (do this by entering 0 in the field MAX CALLS FOR ON-SCREEN GRAPH on the GENERAL INFORMATION screen).

7.10.5 Viewing the Outbound Telemarketing Status Display (DOS-based VP Systems)

If you are using the Outbound Telemarketing optional module, a fourth status screen is available. This screen shows the real-time activity of the program. Each line in the VP system that is placing outbound telemarketing calls displays the current status of the call in progress. If the system has more than 8 lines, you can use the <Pg-Up> and <Pg-Down> keys to display the next and previous group of lines. The fields shown within each box are:

- **DIAL:** The telephone number dialed for the call
- **PROG:** The current state of the call (dialing, ringing, playing greeting, etc.)
- **BOX:** The outbound telemarketing box associated with this call
- **Totl**: The total calls placed on this line for the current job

See section 28 for more information.

7.10.6 Understanding the Voice Mail Viewer Application (Windows-based VP Systems)

You can view line activity and inbound and outbound call counts on Windows-based VP systems by accessing the Voice Mail Viewer application. To launch this program, click on the VOICE MAIL VIEWER icon from the Windows desktop. At the password entry prompt, enter **1234** to log in using the default Technician password. (Passwords are specified on the GENERAL INFORMATION screen of the Database Administrator application.) The main screen of the Voice Mail Viewer identifies the line activity and inbound and outbound call counts for each port on the system.

From the Tools menu on the VOICE MAIL VIEWER screen, you can:

- Activate the Trace feature (see section 9.5 for information)
- Manually disconnect a port (any active call is immediately terminated)
- Reset the inbound and outbound call counters for each port
- Reset a mailbox back to its defaults (specified in prototype mailbox 9994)

- Manually invoke a refresh of all message waiting indicator lamps on the system (ensures they are properly reflecting the status of each mailbox's new message queue)

From the History menu on the VOICE MAIL VIEWER screen, you can:

- View the error log file
- Clear the error log file

For more information on system errors, see section 18.

To close the Voice Mail Viewer application, click on Exit from the File pull-down menu on the main VOICE MAIL VIEWER screen.

7.10.7 Understanding the Message Status Viewer Application (Windows-based VP Systems)

You can view the number of Old and New messages currently stored in each mailbox on Windows-based VP systems by accessing the Message Status Viewer application. To launch this program, click on the MESSAGE STATUS VIEWER icon from the Windows desktop. At the password entry prompt, enter **1234** to log in using the default Technician password. (Passwords are specified on the GENERAL INFORMATION screen in the Database Administrator application.) The main screen of the Message Status Viewer identifies the current count of each message type in each mailbox on the system. Click on the NextSet and PreviousSet buttons at the bottom of the screen to refresh the view with additional mailboxes on the system.

To close the MESSAGE STATUS VIEWER, click on the close window icon at the top right of the dialog box.

7.10.8 Viewing VP System Reports (Windows-based VP Systems)

Windows-based VP systems include an extensive report generation package that allows system administrators to generate reports and view them on any networked client PC installed with Microsoft Excel 97/98/2000. (Note that Microsoft Excel 97/98/2000 is not included with the VP system.)

To view reports on a networked client PC, you must install the reports package client software on the client PC (requires an approximately 6 MB of free hard-disk space for installation).

Note:	To show reports effectively, client computers must be Pentium 166 PCs or better with at least 32 MB RAM. Set monitor resolution to a minimum of 800 x 600 for best viewing.

To install the reports package client software on a client PC:

1. From the client PC desktop, open Windows Explorer and select the option MAP NETWORK DRIVE from the Tools menu. In the Drive field, assign a drive letter to designate a drive on the client PC that can be mapped. In the Path field, type `\\[VP SYSTEM]\REPORTS` (where *[VP SYSTEM]* is the name of the PC on which the VP system software is installed). To continue, click on OK.
2. At the prompt to enter a password, type `kvtlog`. If you are prompted to enter a user name, type `log`. To continue, click on OK.

3. Insert the VP system installation CD into the CD ROM drive of the client PC. If the installation routine automatically starts, cancel out of the installation on the first available screen.
4. Select the Start button from the Windows desktop; then select Run. The Run dialog box displays.
5. onCon the filein that folder, then click OPEN and OK
6. When youINSTALL . Then click INSTALL.
7. If the InstallShield Wizard finds a prior version of VP reports installed, click on the REMOVE button. Follow prompts to remove the old version, and then restart the install process from step 5.
8. screen, in the eLocation window:
9. Click on the Browse button and select the mapped drive path to the file MDREPORTS.MDB. This file is located on the VP system PC under \VM\LOGS\REPORTS.
10. Click the Test button to verify the reports database is accessible. When the Success window displays, click on OK. If an error message displays, verify the path you indicated above is correct.
11. Click on the Set button to save this path setting, and in the Data Source Created window, click on OK.
12. Click on Exit when you have compleed this setup.

Once the installation process is complete, the PC desktop is updated. From the Start button, you can now select Programs / Voice Messaging / Reports / View VP Reports to view reports of data that is automatically tabulated on the VP system PC each night.

Note:	The data you view reflects statistics up to 3:00 AM of the previous night. If you want to view reports that include the current day's data, you must run the UPDATEDBREPORT.EXE command on the VP system PC. On that PC, use Windows Explorer to browse to C:\VM\LOG\BIN\ and double click on the file UPDATEDBREPORT.EXE. Complete the panel that opens and click on Update All to run one cycle of reports.

Generating Reports

Each night, the VP system automatically runs the Updatedbreports program to compile system report data in a Microsoft Access database file named DBREPORT.MDB. This file stores data for each day, up to one year. In the first week of January each year, the DBREPORT.MDB file is renamed DBREPORT.[YEAR].MDB (where [year] is the four-digit year such as 2002), and the DBREPORT.MDB file is cleared to begin tabulation of current year data.

Note:	Verify the option GENERATE LOG DATA FOR REPORTS is selected on the Miscellaneous tab of the GENERAL INFORMATION screen. Reports cannot be generated if this option is not selected.

Accessing Reports

You can select to view reports from client PCs on which you have installed both the reports package client software (as described in the previous procedure) and Microsoft Excel 97/98/2000. To view

reports, you click on the Start button and select Programs / Voice Messaging / Reports / View VP Reports.

Note:	When viewing reports from the client PC, it may take several minutes for data to download before reports are displayed.
Note:	When Excel 97/98 opens the workbook, it prompts you to enable the macros within the file. Select the option to Enable Macros, otherwise data within the report cannot be tabulated.

No matter how you select to view reports, you are prompted to enter the VP system Administrator password before you can view the system information. Enter the Administrator password that was valid the previous evening (the last time the report data was compiled).

Once you enter the password, the VP system reads the data in the Microsoft Access database file DBREPORT.MDB and opens a Microsoft Excel workbook file containing several worksheets. Each worksheet presents data for a specific report.

Setting up Report Defaults

On the first page of the workbook, you can click on the company name field to enter the name of the company. This name will appear on all subsequent report worksheet pages on-screen and when reports are printed. The STARTED and LAST UPDATED fields on the first page identify the dates for which report data is available. You cannot change these fields.

Under the SYSTEM INFORMATION heading on the first workbook page, the report identifies the number of ports on the system and the total length of messages in hours and minutes that are currently stored. This area also displays the amount of time free for additional voice and fax message storage. This figure helps you quickly identify if the VP system is low on available storage space.

Under the DEFAULTS heading on the first workbook page, you can modify settings that determine the report time-frame information that will be included by default on report worksheets *the next time you select to view reports*. Note that although you modify the *default* view settings on this page, you can modify the view settings on a report-by-report basis as many times as you like as you view specific report worksheets. You make these report-specific modifications using fields in the upper portion on the worksheet screens. When you modify report time-frame settings on a particular screen, you must also select the UPDATE button on the screen to re-draw it using the new settings you specified.

Viewing and Working with Reports

You can sort specific data on report worksheets and print the entire workbook or specific report worksheets using standard Excel commands. You can also use the Save As command on the file menu to save the file to a drive or diskette. (Refer to the Microsoft Excel documentation for additional information.)

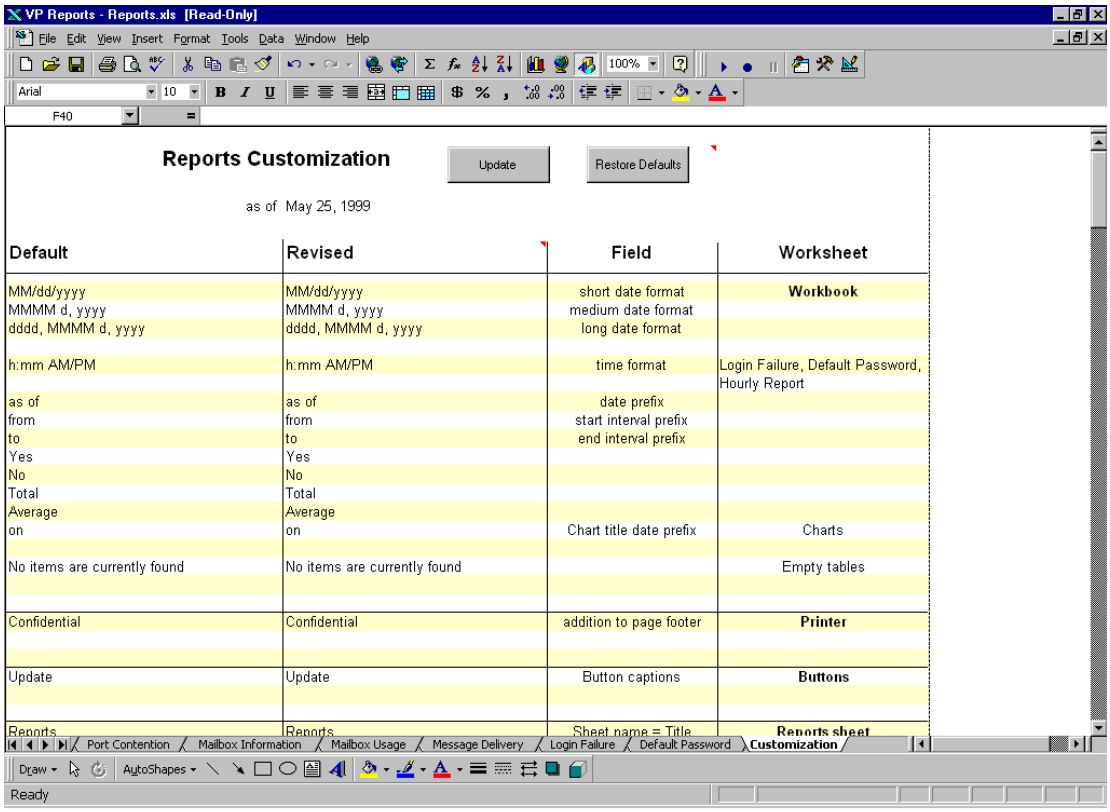
Note that while you view and work with the report, the data in the workbook is being read from the Access database file DBREPORT.MDB on the VP system PC. If you use the Save As command to save the report under a different drive, directory, or filename, the workbook will no longer be reading the

Access database file, so you cannot modify report time-frame dates and re-generate screens within the report.

When you select to close the Excel file, you are prompted to Save your changes. If you select the Yes option, the VP system saves the name you entered for the company and the default view settings you indicated on the first page of the workbook.

Customizing Reports

Once you access the report workbook, you can customize the presentation of data in each report by changing options on the Reports Customization worksheet. By changing information in the Revised column of this worksheet, you can adjust the presentation of dates and times in the report and the names assigned to fields on report worksheets. The Default column indicates the standard settings shipped with the Report Generation package. You can set any data changes you make in the Revised column back to the defaults by clicking on the Return Defaults button at the top of the Reports Customization worksheet screen.



To change a field name or date/time presentation on a particular worksheet, you must first locate the line on the Reports Customization worksheet on which you need to indicate the change in the Revised column. Do this by scrolling down the Worksheet column to locate the worksheet containing the field you want to change. Look in the Field column to locate a reference to the field. Indicate the change you want to make in the Revised column. Click on the Update button at the top of the screen to apply the change. Be sure to review the worksheet with your revised entry. In some instances, you may find you need to adjust the revision you make because the revised entry does not fit properly onto the worksheet.

To customize the format of date and time displays:

To display:	Use this format:
Months as 1-12	M
Months as 01-12	MM
Months as Jan-Dec	MMM
Months as January-December	MMMM
Days as 1-31	d
Days as 01-31	dd
Days as Sun-Sat	ddd
Days as Sunday-Saturday	dddd
Years as 00-99	yy
Years as 1900-1999	yyyy
Hours as 0-23	h
Hours as 00-23	hh
Minutes as 0-59	m
Minutes as 00-59	mm
Seconds as 0-59	s
Seconds as 00-59	ss

Understanding Available Windows-based VP System Reports

> **Note:** Samples of reports are provided in the *System Supervisor and Subscriber Guide*.

Two types of reports are available with Windows-based VP systems:

System reports–Provide detail and summary statistics on port usage and call activity

Mailbox reports–Provide detail and summary statistics on individual mailbox usage

There are 6 system reports:	There are 5 mailbox reports:
Class of Service	Mailbox Information
Hourly Statistics	Mailbox Usage
Port Activity	Message Delivery
Port Contention	Login Failure
Port Contention Trend – Monthly	Default Password
Port Contention Trend – Weekly	

System Reports

Class of Service Report

Description: Displays the current setting for each feature included in each of the 8 available classes of service (numbered 0 through 7), including any outdialing restrictions as well as digits that can be dialed while holding.

Purpose: Use this report to review the contents of all classes of service on a single screen (or piece of paper).

Port Activity Report

Description: Provides call information for each VP system port. As you view the report, you can modify the range of dates to be included.

Purpose: Use this report to monitor overall system performance, such as:

Are there enough ports to handle all outbound activities (such as wake-up calls, message waiting lamp calls, message delivery calls, etc.).

What is the typical average call length? If this number is exceptionally high or low, there may be a technical problem (such as a bad voice board) or a design issue (such as increased call length resulting because callers are using a new question box or IVR application or because prompts in a Routing box are confusing and callers take a long time to navigate through them).

Hourly Statistics Report

Description: Provides the *average* VP system call activity by hour. You can optionally exclude weekends or Sundays from the report.

Purpose: Use this report to identify peak traffic periods (and potential bottlenecks).

Example:

A spike in the number of calls processed between a certain time period during the day may identify increased traffic resulting from callers experiencing longer than normal hold times, and thus tying up VP system ports for extended periods of time. If a review of the Port Contention report shows that during that same period 100% of the VP system ports are in use, it is likely that additional callers are receiving a busy signal instead of being processed by the system.

Possible solutions:

- Increase the number of people answering calls during that period.
- Adjust call routing or provide additional staff training so calls are handled more efficiently and ports are freed more quickly.
- Increase the ports on the system.

Port Contention Report

- Description: Graphically displays the total amount of time the VP system experiences 50%, 75%, and 100% *port contention,* meaning all ports are busy or in use simultaneously. (If a range of days is specified, the information for the busiest day during that range is shown, and the date of that day is identified above the graphic.)
- Purpose: Use this report to identify peak traffic time periods. Note that if port contention at any hour is nearing or at 100%, some callers to the company may be hearing a busy signal. This indicates that either additional ports need to be added or staffing, call routing, or other adjustments need to made as discussed above under Hourly Statistics Report.

Port Contention Trend by Month Report

- Description: Graphically displays by month the total amount of time the VP system experiences 50%, 75%, and 100% *port contention,* meaning all ports are busy or in use simultaneously. (This report displays to the right of the Port Contention report.)
- Purpose: Use this report to identify *annual* traffic trends or patterns (such as seasonal peaks and valleys in call traffic, a gradual or dramatic growth pattern, etc.).

Port Contention Trend by Day of Week Report

- Description: Graphically displays by day the total amount of time the VP system experiences 50%, 75%, and 100% *port contention*, meaning all ports are busy or in use simultaneously. (This report displays to the right of the Port Contention Trend by Month report.)
- Purpose: Use this report to identify *daily* traffic trends or patterns (such as which days the business generally experiences peaks and valleys in call traffic).

Mailbox Reports

Mailbox Information Report

- Description: Provides *general* information about all mailboxes on the system. (Using Excel 97/98 features, you can sort the report by name, box number, or number of messages.)
- Purpose: Use this report to view a summary listing of all mailboxes in the VP system. The report can also serve as an administration and troubleshooting tool. You can:
- Compare at a glance the classes of service assigned to different users.
- Confirm that a group of mailboxes has been given access to VCM or see how many more VCM licenses remain to be assigned (for example, if the total VCM users shown on the report is 48 and 50 licenses have been purchased, two licenses/seats are available).
- Identify potential opportunities for freeing storage space on the hard drive (by identifying mailboxes with exceptionally large numbers of saved messages that may be able to be deleted).
- Identify old mailboxes that are no longer in use and can be deleted.

Mailbox Usage Report

- Description: Provides *detailed* information on the use of system mailboxes for the current and previous month. (On-screen options allow you to sort the report by name or box number.)
- Purpose: Use this report to track specific activity on how mailbox owners are using their mailboxes. You can also compare activity for the current and previous month. Data on the report may identify subscriber training requirements. The report identifies:
- How frequently the subscriber accesses the mailbox
- Total messages received and sent by the mailbox
- The number of faxes received and sent by the mailbox
- Who is using VCM and to what extent
- Who is using outcalling and to what extent
- How often calls reach voice mail and why (for example, the mailbox owner does not answer or is on the phone)

Message Delivery Report

- Description: Provides a summary of all message delivery events by mailbox number.
- Purpose: The report can be very useful in controlling costs and to help secure the VP system.
- Example:
- Consider an employee who leaves the company. As a field technician who was on the road much of the time, the employee had his mailbox set up to deliver all his messages to his current field location (typically a long distance call). When he left the company, no one deleted his mailbox. The box still receives company-wide broadcast messages, Group box messages, etc., and the messages are still being delivered to his last long distance telephone number.
- The report can also be used to help identify potential system security breaches that involve the message delivery feature.

Login Failure Report

- Description: Provides a list of all unsuccessful login attempts to system mailboxes. An unsuccessful login attempt occurs when a caller enters a mailbox number but fails to enter the valid password.
- Purpose: The report can be useful in identifying suspected security breaches of the VP system.

Default Password Report

- Description: Provides information about mailboxes whose subscribers have not changed their password since the mailbox was originally created or reassigned.
- Purpose: The report can be useful in identifying mailboxes that pose a security risk to the company, as outside callers may gain subscriber access to the system more easily.

7.11 Understanding Supervisor Features

A mailbox can be provided Supervisor privileges in its assigned class of service by setting the SUPERVISOR STATUS field to YES on the CLASS OF SERVICE screen (see section 4.10).

From any telephone, a Supervisor can call the VP system and:

- Add, delete, and modify mailboxes, Routing boxes, and Question boxes.
- Restore a mailbox that has been suspended.
- Disable a line, so that it will not answer incoming calls.
- Re-enable a line that has been disabled.
- Manually switch to Day Service, Night Service, or Lunch Service mode.
- Change the system broadcast message.
- Modify the system time and date.
- Use the teleparameter feature (see section 11 for details).
- Temporarily suspend a mailbox so that the owner cannot open it to retrieve messages or use mailbox features.

You can gain access to the Supervisor functions by opening the mailbox, and pressing 6 in response to the Main menu prompt:

> "To listen to the messages, press 1,
> to send a message, press 2...etc."
>
> Press 6 for the Supervisor menu options:
>
> "For Mailbox administration, press 1.
> For Routing box administration, press 2.
> For Question box administration, press 3.
> For port administration, press 4.
> To change the system broadcast message, press 5.
> To change the voice mail day / night service, press 6.
> To change the system time, press 7.
> To change the system date, press 8.
> To change system parameters, press 9.
> To run first time setup, press 0.
> Or, to exit, press #."

Figure 7-5 Structure of Supervisor Menus shows the structure of the Supervisor menus. Each of the options is described below.

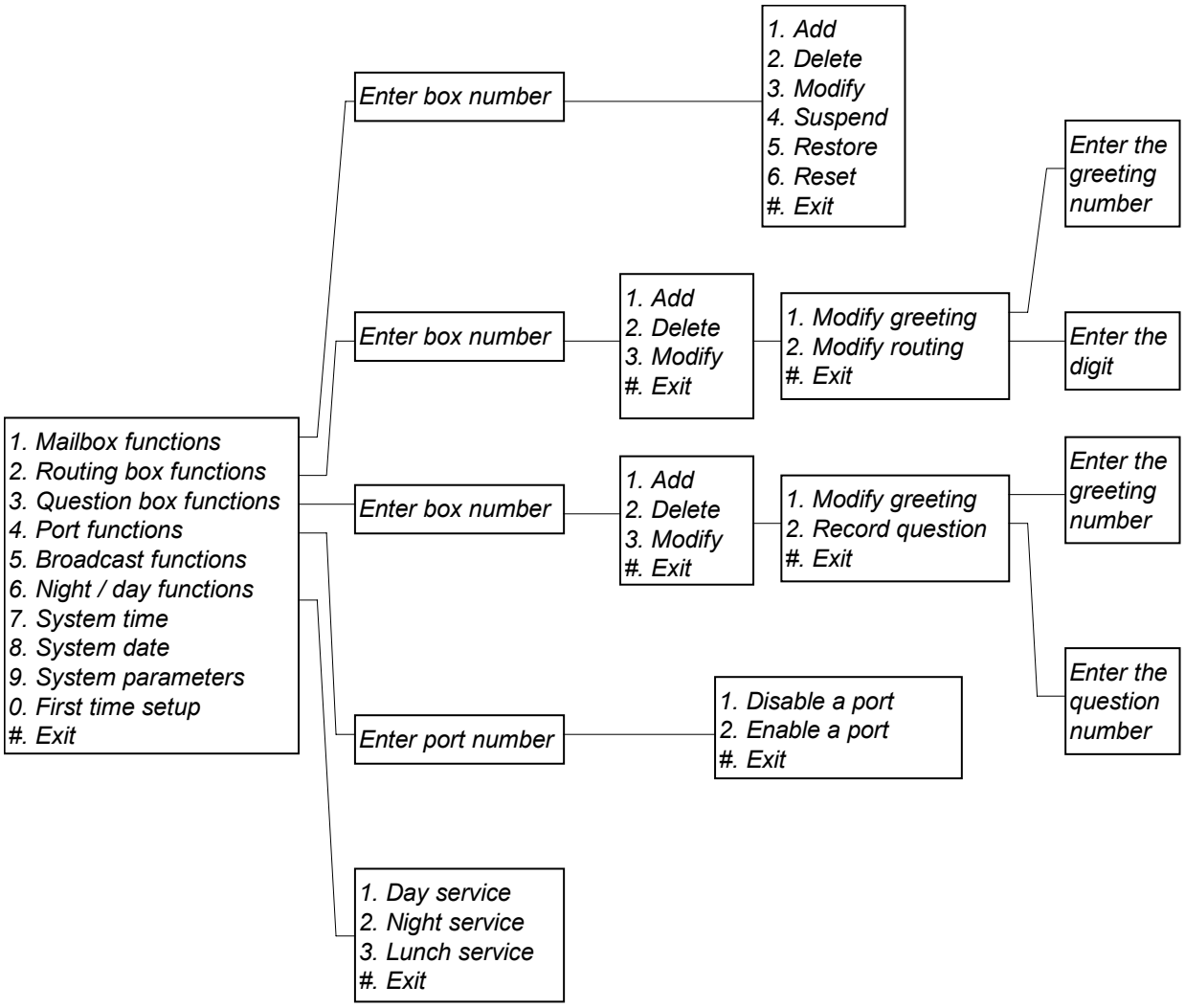


Figure 7-5 Structure of Supervisor Menus

7.11.1 Performing Mailbox Administration

Mailbox administration allows you to call into the system from any phone to:

- Add or delete a mailbox
- Change a mailbox greeting (the mailbox owner can also perform this function by logging into the mailbox)
- Change a mailbox password (the mailbox owner can also perform this function by logging into the mailbox)
- Change the call transfer, pager, and message notification numbers (the mailbox owner can also perform this function by logging into the mailbox)
- Suspend a mailbox (rendering it inaccessible to the mailbox owner) and restoring access to a suspended mailbox)

When you press 1 to select mailbox administration from the main Supervisor menu, the VP system prompts you for the number of the mailbox you want to administrate. Enter the mailbox number. The VP system repeats the number and asks you to confirm it. Press 1 to confirm. The VP system then plays the Mailbox Administration menu:

"To add, press 1.
To delete, press 2.
To modify, press 3.
To suspend, press 4.
To restore, press 5.
To reset, press 6.
Or, to exit, press #."

Adding a Mailbox

If you press 1 to add a mailbox, the VP system determines if the specified box number already exists. If it does not already exist, the VP system creates the box and voices the Operation Completed prompt.

When the VP system creates a mailbox, it makes a copy of the prototype mailbox 9994. Default information set up in the prototype mailbox is copied to the newly created mailbox. (see section 5.5). Once the mailbox is created, you can customize it over the telephone by choosing option 3 from the Mailbox Administration menu, as described later in this section.

Deleting a Mailbox

If you press 2 to delete a mailbox, the VP system ensures the mailbox is not in use, and if not, deletes it. It then voices the Operation Completed confirmation prompt.

Modifying a Mailbox

If you press 3 to modify a mailbox, the VP system opens the mailbox and voices the Options menu:

"To record the name, press 1.
To record the greeting, press 2.
To change the password, press 3.
To change the call transfer service, press 4.
To change the message notification service, press 5
To change the pager service, press 6.
Or, to return to the main menu, press #."

You can customize the mailbox by following the prompts to make necessary modifications.

Suspending a Mailbox

If you press 4 to suspend a mailbox, the VP system marks the mailbox as suspended, then voices the Operation Completed prompt.

A suspended mailbox can still take messages and perform call transfers. However, when the owner attempts to open the mailbox to retrieve his/her messages, he/she is told by the VP system*:*

"I'm sorry, this box has been taken out of service temporarily."

Restoring a Mailbox

If you press 5 to restore a mailbox, you remove it from its suspended state. The owner can once again open the box to retrieve messages.

7.11.2 Performing Routing Box Administration

Routing box administration allows you to call into the system from any phone to:

- Add or delete a Routing box
- Change a Routing box greeting
- Change the routing within a Routing box

When you press 2 to select Routing box administration from the main Supervisor menu, the VP system asks for the number of the Routing box you want to administrate. Enter the Routing box number. The VP system repeats the number, and asks you to confirm it. Press 1 to confirm. The VP system then plays the Routing Box Administration menu:

> "To add, press 1.
> To delete, press 2.
> To modify, press 3.
> Or, to exit, press #."

Adding a Routing Box

If you press 1 to add a Routing box, the VP system determines if the specified box number already exists. If it does not already exist, the VP system creates the box and voices the Operation Completed prompt.

Once the Routing box is created, you can customize it over the telephone by choosing option 3 from the Routing Box Administration menu, as described later in this section.

Deleting a Routing Box

If you press 2 to delete a Routing box, the VP system ensures the Routing box is not in use, and if not, deletes it. It then voices the Operation Completed prompt.

Modifying a Routing Box

If you press 3 to modify a Routing box, the VP system voices the Routing Box Options menu:

> "To change the greeting, press 1.
> To change the routing, press 2.
> Or, to exit, press #."

If you press 1 to change the greeting, the VP system plays the following menu:

"To replay the greeting, press1.
To re-record the greeting, press2.
To delete the greeting, press 3.
To choose a new greeting, press 5.
Or, to exit, press #."

You can change the greeting by following the prompts to make the necessary modifications. Note that selecting option 5 has no effect unless the owner of the Routing box is assigned a class of service that allows multiple greetings.

If you press 2 to change the routing, the VP system plays the following menu:

"For digit 0 through 9, enter the digit.
Or press * for special routing options."

Once you have selected a digit, the VP system identifies the current routing set up for that digit:

"The current destination is [box number]. If you would like to change this, press 1, otherwise press #."

To change the call routing, enter a new box number to which the calls will be routed when the caller enters the specified digit.

7.11.3 Performing Question Box Administration

Question box administration allows you to call into the system from any phone to:

- Add or delete a Question box
- Change a Question box greeting
- Change the questions within a Question box

Adding a Question Box

If you press 1 to add a Question box, the VP system determines if the specified box number already exists. If it does not already exist, the VP system creates the box and voices the Operation Completed prompt.

Once the Question box is created, you can customize it over the telephone by choosing option 2 or 3 from the Question Box Administration menu, as described later in this section.

Deleting a Question Box

If you press 2 to delete a Question box, the VP system ensures the Question box is not in use, and if not, deletes it. It then voices the Operation Completed prompt.

Modifying a Question Box

If you press 3 to modify a Question box, the VP system voices the Question Box Options menu:

"To change the greeting, press 1.
To record a question, press 2.
Or, to exit, press #."

If you press 1 to change the greeting, the VP system plays the following menu:

"To replay the greeting, press1.
To re-record the greeting, press 2.
To delete the greeting, press 3.
To choose a new greeting, press 5.
Or, to exit, press #."

You can change the greeting by following the prompts and making the necessary modifications. Note that option 5 has no effect unless the owner of the Question box is assigned a class of service that allows multiple greetings.

If you press 2 to record a question, the VP system prompts you for the question number. Enter the question number (1 - 9 or 0 for question 10). The VP system plays the current question as it is recorded and prompts you:

"To replay, press1.
To re-record, press2.
To delete, press 3.
Or, to exit, press #."

You can change the question by following the prompts and making the necessary modifications.

7.11.4 Performing Port Administration

If you want to prevent the VP system from answering calls on one or more of its ports, you can disable the port(s) over the telephone. To disable a port, select option 4 from the Supervisor menu. The VP system asks for the port number. Enter the number of the port you want to disable. The VP system repeats the number you entered and asks you to confirm it. Press 1 if the number is correct. The VP system then prompts you to indicate what action you want to take with the port:

"To disable, press 1.
To enable, press 2.
Or, to exit, press #."

If your press 1, the VP system marks the port as disabled and does not use the port to answer incoming calls or generate outgoing calls. Once the port is disabled, the VP system voices the Operation Completed prompt.

If you press 2 to enable a port, the VP system re-enables the previously disabled port.

7.11.5 Sending Broadcast Messages

The broadcast message does not activate any mailbox notification services (message waiting lamps, pagers, etc.).A broadcast message is heard by all mailbox owners when they open their mailbox. The broadcast message can only be recorded by a mailbox owner with Supervisor privileges. This type of message is different from any other message in the VP system in the following ways:

The mailbox owner's New and Old message counts are not affected by a broadcast message.

The broadcast message is sent to all mailboxes. It is not possible to select which mailboxes are to receive the broadcast message.

Note:	Due to the above characteristics of a broadcast message, users may find it more advantageous to use a Group box to send a message to multiple individuals (see section 5.8).

Once a supervisor records a broadcast message, it is played to each mailbox owner the next time he/she opens his/her mailbox. The message is played only one time to each mailbox owner (the next time an owner logs in to his/her mailbox, the broadcast message is not repeated).

To access the Broadcast Message menu, press 5 from the main Supervisor menu. The VP system voices the following menu:

"To hear the current broadcast message, press 1.
To re-record the broadcast message, press 2.
To delete the broadcast message, press 3.
Or, to exit, press #."

If you press 1, the current broadcast message is played. If there is no broadcast message recorded on the system, you hear the system prompt:

"There is currently nothing recorded."

In either case, you return to the Broadcast Message menu.

If you press 2 to record a new broadcast message, you hear the prompt, *"Please speak after the tone."* Record the message, then press # to end recording. You can review and re-record the message until you are satisfied with its contents. The new broadcast message replaces the old one (if one existed). Only one broadcast message can be recorded on the system at a time. The message is stored in the file BROADCST.MS1, where 1 represents the language number.

If you press 3, you delete the currently recorded broadcast message.

Note:	If a broadcast message is recorded, each new mailbox that is created will receive that broadcast message. To prevent newly created mailboxes from receiving a currently recorded broadcast message, you must delete the current broadcast message recording.

7.11.6 Switching to Day Service or Night Service Mode

A system supervisor can override the regular Day Service, Lunch Service, or Night Service mode by forcing the VP system into another mode. The VP system switches to the new service mode and remains in that mode until it is time for the system to automatically switch out of that mode and into another. For example, assume that Day Service mode runs from 8:00 AM until 5:00 PM and Lunch Service mode runs from noon until 1:00 PM. If the supervisor calls in at 9:00 AM (the VP system is in Day Service mode) and forces the VP system into Night Service mode, the VP system remains in Night Service mode until noon. It then automatically switches to Lunch Service mode.

To force the VP system into Day Service, Lunch Service, or Night Service mode, press 6 from the main Supervisor menu. The VP system identifies the mode it is currently in, for example:

"The voice mail system is currently in Day Service mode."

The VP system then provides the option to switch to another service mode:

"To change the voice mail system to Day Service mode, press 1.
To change the voice mail system to Night Service mode, press 2.
To change the voice mail system to Lunch Service mode, press 3.
Or to exit without making any changes, press #."

You can force the VP system into any of the service modes as required.

Note:	The current service mode is displayed in the top-left corner of the Line Status display. If the VP system was forced into the current mode, the mode name is enclosed in brackets. For example, `DAY SERVICE` indicates the VP system is in Day Service mode in accordance with the time of day. `[DAY SERVICE]` indicates the VP system is in Day Service mode because the Supervisor forced it into that mode.

7.12 Using the Multilingual Feature

7.12.1 Understanding the Multilingual Feature

The VP system can process calls in up to 9 different languages. For the VP system to fully support a language, you must ensure that:

- The system prompts have been recorded in that language
- Each box has a greeting recorded in that language
- The VM.CFG indicates the number of languages you are using with the parameter LANGUAGES = n (see section 12)
- You have modified prompts 65, 66, and 67 to include the multilingual options (see section 15 for information on selecting optional pre-recorded prompts)

7.12.2 Switching Between Languages

At the beginning of a call, you can allow the caller to select a language or you can have the VP system select a language automatically. During the call, you can offer the caller the option to change to another language at almost any time.

Selecting a Language at the Beginning of the Call

Note the following considerations regarding language selection at the start of the call:

- You can set up the VP system to allow the caller to choose the language. This is the default operation. When the VP system answers the call, it immediately voices the options recorded in prompt 135:

  "Press 1 for English or 2 for Spanish."

You can re-record prompt 135 if it does not match the languages you are using.

- You can set up the VP system to automatically choose a specific language for any or all of its lines. If you do this, the VP system does not ask the caller to choose a language. To have the VP system automatically select a language, modify the parameter FIXED LANGUAGE in the VM.CFG file (see section 12). For example, if you have a 4-line system, and you want the VP system to answer lines 1 and 2 in English (Language 1) and lines 3 and 4 in Spanish (Language 2), you add the following lines to the VM.CFG file:

  FIXED LANGUAGE=1,1
  FIXED LANGUAGE=2,1
  FIXED LANGUAGE=3,2
  FIXED LANGUAGE=4,2

Though the system answers with a specific language, the caller still has the option to change to another language, as described below.

Selecting a Language During the Call

Note the following considerations regarding language selection during the call:

- Callers can switch to another language in any Routing box. You simply define a digit that causes the VP system to change languages during the call. This is the TDD digit. To define a TDD digit, modify the TDD DIGIT parameter in the VM.CFG file (see section 12). For example, to define **9** as the digit that should invoke a different language, add the following line in the VM.CFG file:

  TDD DIGIT=9

  If the caller dials **9** while in a Routing box, the VP system looks to see if the digit **9** has a destination assigned to it (see section 5.7). If so, the routing takes precedence, and the VP system does not change languages. If the digit **9** does not have a destination assigned to it, the VP system uses the 9 as the TDD digit and switches to the next language.

  Assume, for example, the VP system is using 3 languages, and the caller is currently listening to Language 1. If the caller presses 9 while in a Routing box, the VP system starts playing the Routing box greeting again in Language 2. If the caller presses 9 again, the VP system repeats the greeting in Language 3. If the caller presses 9 one more time, the VP system repeats the greeting in Language 1... etc.

- A mailbox owner can switch languages when he/she has opened his/her mailbox. If the mailbox owner has opened his/her mailbox and is listening to the Main menu, he/she can choose option 5 to switch to a different language. Option 5 switches between languages the same way as the TDD digit does, as described above.

7.12.3 Recording Multilingual System Prompts

As an application example, assume you are setting up a system to process calls in English, French, and Spanish.

Use the prompt recording utility to record the system prompts (see section 15). When you start the program, it defaults to Language 1 (in our example, this is English). Anything you record is recorded as Language 1. To record the French set of prompts:

- On a DOS-based VP system, select NEW LANGUAGE from the menu displayed on the utility program screen. Language 2 becomes the default language (everything you record now is recorded as Language 2). When you want to record Spanish prompts, select NEW LANGUAGE again, to move on to Language 3.
- On a Windows-based VP system, select Language **2** on the RECORD SYSTEM PROMPTS screen. Language 2 becomes the default language (everything you record now is recorded as Language 2). When you want to record Spanish prompts, select Language **3**, to move on to Language 3.

By default, the system prompts for Language 1 reside in the directory \VM\P directory. The prompts for Language 2 reside in the subdirectory \VM\P\L2. The prompts for Language 3 prompts reside in the subdirectory \VM\P\L3, etc. See section 16 for more information on how the VP system organizes its files.

Recording Greetings for Individual Boxes

On the MAILBOX screen (see section 5.5), you can record greetings for a mailbox.

On DOS-based VP systems, when you move the cursor to the GREETING RECORDED field, a menu appears, offering the option to play or record the greeting. If you select PLAY or RECORD on a multi-lingual VP system, the VP system asks you which language you want to use (1-9). Enter a number between 1 and 9 to select the language.

On Windows-based VP systems, you can record greetings by clicking on the Record Greeting button, then using the controls on the Sound Recorder dialog box. At the lower-right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

Note:	On DOS-based VP systems, the YES / NO in the GREETING RECORDED field reflects only whether greeting 0 of Language 1 has been recorded. On Windows-based VP systems, the light on Greeting Recorded button reflects only whether greeting 0 of Language 1 has been recorded.

Since each mailbox can be allowed (by class of service) up to 10 greetings (0 - 9) and the VP system supports up to nine languages, a single mailbox could have up to 90 recorded greetings.

Recording Box Greetings Remotely

When you call into the VP system to re-record the greeting (see section 6.6), it records and plays the greeting (or the active greeting, if this box has multiple greetings) in the current language. The current language is the one you chose at the start of the call. You can change the current language by selecting option 5 from the Main menu once you open the mailbox. The VP system then records and/or plays the greeting in the new current language.

While the VP system is processing a call, it tries to use the language chosen by the caller. In some cases, however, it may not be able to. For example, if Spanish language prompts have been installed and Mike Smith has recorded his mailbox greeting in English and French but the caller is using Spanish, the VP system cannot play Mike's Spanish greeting. In this case, it plays the default Spanish greeting:

"[Mike Smith] is not available right now. If you would like to leave a message, press 1. To try another extension, press 3..." (Prompts 2 and 3 in Spanish)

Routing box greetings can be recorded by the Routing box owner using the techniques described above, or they can be recorded from the VP system computer (see section 15). If a Routing box has greetings only in English and French, but the caller is using Spanish, the VP system defaults to playing the Language 1 version of the greeting (in this case, English).

7.12.4 Modifying the VM.CFG Configuration File for Multilingual

Edit the VM.CFG configuration file to indicate the number of languages you are using on the system. Do this by adding the following line anywhere in the file:

LANGUAGES = n

(where n is the number of languages)

As discussed earlier, by default, every line into the VP system is answered with a prompt that requests the caller choose a language. If you want a particular line to not offer the language selection prompt and always answer in a particular language, enter the following in the VM.CFG file:

FIXED LANGUAGE = x, y

(where x is the line number and y is the new default language for that line)

7.12.5 Understanding D.I.D. Considerations

If you use D.I.D., the VP system receives the D.I.D. digits before it is able to prompt the caller which language it is to use. Since D.I.D. digits usually correspond to a mailbox number, the VP system has an option in each mailbox that allows you to specify which language the VP system should use when a call is routed to the mailbox via D.I.D. See section 5.5 for more information.

7.13 Setting Up the Digit Translation File (TRANS.TXT)

If the VP system is connected to a telephone system that uses voice mail integration (in-band DTMF signaling or out-of-band serial data), or you are connected to Direct Inward Dial (D.I.D.) central office lines, you may need to add digits to, delete digits from, or convert digits in the packet of digits sent by the telephone system to the VP system. You do this by specifying translation rules in a text file named TRANS.TXT.

Note:	When you run the PBX Setup utility and specify the phone system, the Setup program downloads a default TRANS.TXT file created specifically for the phone system you selected. This TRANS.TXT file functions adequately for most installations. Use the information in this section to make any adjustments you may find necessary.

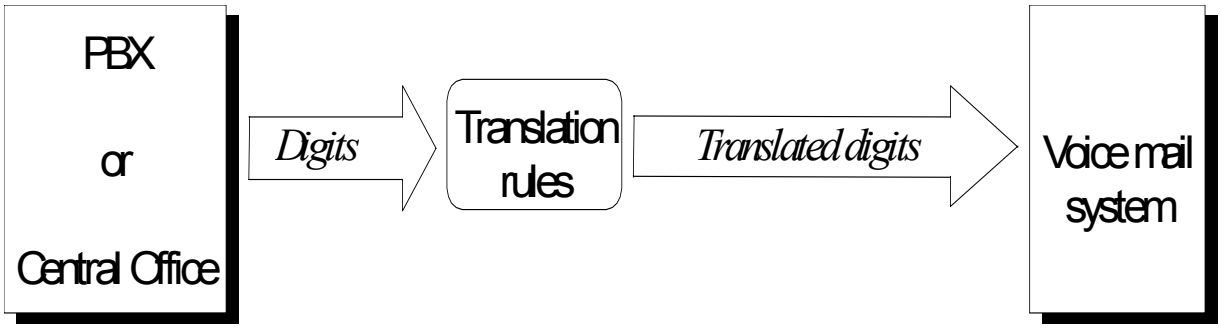


Figure 7-6 Translating Digits from the PBX or C.O.

Note: It is important to note that the translation rules discussed in this section and specified in the TRANS.TXT file apply only for the first few moments after the VP system answers an incoming call, before it plays the initial greeting. The time when translation rules apply is defined in the INITIAL PAUSE field on the OTHER CUSTOMIZATIONS screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems) (see section 4.11). The rules for digit translation do not apply during any other portion of the call.

When the VP system detects incoming digits during the INITIAL PAUSE, it collects and stores them. The VP system then consults the translation table stored in the file TRANS.TXT. If TRANS.TXT does not exist, the VP system processes the digits as usual.

Each line you specify in TRANS.TXT is called a *translation rule*. A translation rule describes how the VP system is to translate a pattern of incoming digits. The format of a translation rule is as follows:

RECEIVED DIGITS = NEW DIGITS

For example, if the telephone system sends the digits **123** and the VP system is to treat these as **9**, the translation rule reads:

123=9

7.13.1 Understanding Digit Translation

Integration digit signals are sent as part of 3 general categories:

- Station identifier digits
- Reason codes
- C.O. line (trunk) identifier digits

This section discusses when you need to use translation rules and how you do so.

Note: When the VP system is connected to a telephone system using voice mail integration, the mailbox number and the number specified in the TRANSFER TO field for each mailbox are in most cases the same.

The first and most frequent use of digit translation rules applies when the TRANSFER TYPE field in a mailbox is set to WAIT FOR RING or BLIND. In these cases, the telephone system must return busy and/or ring-no-answer calls to the VP system, and it must include, at minimum, the extension number of the station forwarded to voice mail. For example:

- The VP system answers a new incoming call, and the caller enters **146** as the called party's extension number.
- The VP system looks at mailbox 146 and blind transfers the caller to extension 146 (see section 7.3 for complete details on the call transfer process).
- Extension 146 rings, but no one is there to answer the call. The telephone system is programmed to call forward-no answer that extension to the VP system.
- The VP system answers the call, which has been forwarded no-answer from extension 146. The telephone system then sends DTMF digits **146**.

Consider what now happens if no digit translation rule is specified. The VP system has answered a ringing line and has received the digits 146. To the VP system, this looks the same as another new call. It has received a valid mailbox number, so the VP system attempts to transfer the call to mailbox 146.

However, this is not a new call. It is one that has already been transferred once and not answered. Therefore, you do not want the VP system to transfer the call again, you want the VP system to immediately play to the caller mailbox 146's personal greeting.

To specify this as the action the VP system is to take, you specify the following translation rule in the TRANS.TXT file:

146=146*

The left side of the equation represents digits received from the telephone system during the initial pause, and the right side of the equation identifies how the VP system is to translate these digits. In this example, the VP system is instructed that when the digits **146** are received during the initial pause, it is to repeat those digits and add * at the end. The * is the transfer bypass digit, which instructs the VP system to bypass any further attempt to transfer this call, and instead, to play the mailbox owner's personal greeting.

Note:	When using the digit translation feature with a telephone system that sends voice mail integration digits, you must specify the placement of the transfer-bypass digit as LAST DIGIT on the CALL TRANSFER screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems).

If you have used the transfer bypass feature manually, you know that at the conclusion of the process the VP system plays the prompt, *"You may transfer the call now,"* to let the person who is transferring the call know that he/she can hang up. When transfer bypass is specified in the TRANS.TXT file, however, there is no need for the system to play this prompt. To eliminate the prompt, add a short pause followed by a second *. Using the previous example, the translation rule in TRANS.TXT is now:

146=146*,*

7.13.2 Using Wildcard Characters in Translation Rules

So you do not have to build a translation rule for each mailbox on the system, the VP system allows you to use certain "wildcard" characters: the letters **N** and **P** through **Z** (letter O is not allowed to avoid confusion with zero). Either upper or lower case letters can be used. There are two ways you can use wildcard characters:

- Each wildcard character can represent a single digit in a field (you set this by specifying **512** as a custom code; see section 7.13.4). Each wildcard character (**X**, **Y**, **Z**, etc.) can represent any number of digits in a field. This is the default operation.
- A *field* is the part of a digit stream that is distinct in type. Each field is separated by a delimiting character. To understand the concept of *fields*, consider the following translation rule:

#X#Y#=X,Y

On the left of the equal sign, there are two fields of incoming digits (X and Y) separated by the digit #, which is the delimiter (# separates the fields). On the right side of the equal sign, the delimiter is a comma, which is the only delimiter character the VP system recognizes.

> **Note:** The **$** and the **@** character can also be used as wildcard characters in translation tables. These characters differ from other wildcards, however, in that they cannot be set to represent either a single digit or any number of digits in a field. The $ character always matches a single digit, and the @ character always matches any number of digits in a field, regardless of whether custom code 512 is specified (see section 7.13.4). You can use the **$** and **@** wildcards in DOS-based VP system versions 8.2 revision 6A and higher, Windows-based VP system versions 9.1D or higher, and unified messaging VP system versions 10.1 and higher.

Using Wildcards to Translate Extension Numbers Sent by the Phone System

If the telephone system sends *only* the extension numbers of the station when forwarding a call to voice mail, you can use the following translation rule to cover every extension on the system:

X=X*,*

By default, **X** represents "any number of digits." Therefore, the mailbox numbers on the system can be of mixed length (for example, 3- and 4-digit mailboxes). This is the most often used translation rule and may be the only one required for the system, especially if Reason codes are not needed. (Reason codes are discussed below.)

7.13.3 Storing the Calling Party's Number

If the incoming digit sequence contains the calling party's telephone number, this can be extracted and stored as the account number for the call. The account number can then be used for various purposes. See section 7.23.

Use the word CALLER to tell the VP system which digits represent the calling party's number. Consider an example where the host telephone system sends the calling party's number, followed by a pound, followed by the called extension:

xxxxxxx#yyyy

To inform the VP system that the first 7 digits represent the calling party's number, you include the following line in the TRANS.TXT file:

xxxxxxx#yyyy=yyyy*,*:CALLER=x

The VP system stores the digits as the account number for the call.

7.13.4 Using Reason Codes

Some telephone systems send additional digits along with extension numbers when a call is forwarded to voice mail. These additional digits are called *Reason codes* because they explain why the call has been sent to the VP system. The terminology used by each telephone system varies, but the most common reasons for a call to be sent to voice mail are:

- Forwarded on no-answer
- Forwarded on busy
- Forwarded all calls
- Direct call
- Message retrieval (auto log-on)
- Recall

These Reason codes may be sent before or after the station extension number. Sometimes the codes and their placement are fixed by the telephone system, and sometimes you can make modifications. If you can make modifications, choose *only* those codes that the VP system needs and choose digits that will not conflict with mailbox numbers (such as *, #, A, B, C, D). These guidelines help to keep the translation rules simple. Below are examples of Reason codes sent first and Reason codes sent last in the digit string.

Reason Codes Sent Last (As a Suffix to Extension Number)

Example using simple translation rules: Assume you working with a telephone system that provides Reason codes that are flexible (programmable) but are always sent *after* the extension number. The system sends Reason codes for Busy, Ring-no-answer, and Auto log-on only.

You want to treat both busy and ring-no-answer calls the same way, sending them to the mailbox owner's personal greeting. If for both of these call types, the DTMF digit **A** is specified as the Reason code, the translation rule is:

XA=X*,*

This rule specifies that when any number of digits (**X**) followed by the digit **A** is received from the phone system, the VP system is to repeat those same digits (**X**), remove the **A**, and add *** , *** at the end.

Now consider the case when the Reason code is *not* programmable and the telephone system sends, for example, a **6** to indicate busy and a **7** to indicate ring-no-answer, then the extension number. The translation table format and content must be modified. Consider the consequence if you retained the format and simply modified the rule to read:

X6=X*,*

This rule functions well as long as there is never a 6 in the extension number. Consider, however, if there is a 6 in the extension number. Because **X** indicates "any number of digits," if the call was forwarded from extension 164, the VP system interprets this as 1646. The VP system sees the 1 as the entry for **X** (any number of digits) then sees the first 6, which it interprets as indicating a busy condition. It ignores the last two digits 4 and 6. As a result, it mistakenly translates the string as:

1646=1*,*

Which transfers the call to mailbox 1.

To accommodate Reason codes that can conflict with extension numbers and cannot be reprogrammed, you set up wildcard characters so each character represents only one digit (not any number of digits). To indicate you want to use wildcard characters this way, you must enter **512** in one of the CUSTOM fields on the OTHER CUSTOMIZATIONS screen (DOSVP systems) / CUSTOM FLAGS screen (WINVP systems) (see section 4.11). Once you make this entry, each wildcard character you enter represents only one digit.

The translation code that accommodates Reason codes **6** (discussed in the example above), reads as:

XXX6=XXX*,*

The rule indicates: "for any *three* digits followed by a **6**, repeat the three digits, remove the **6**, and add *** , ***."

To accommodate Reason code 7, you re-enter the rule using the same format and changing the **6** to a **7**:

XXX7=XXX*,*

To further simply these rules, you can combine them and use a second wildcard character **Y**:

XXXY=XXX*,*

This rule now specifies, that no matter what Reason code the telephone system sends (represented by **Y**), the VP system is to remove the code, then add *** , ***. The call is transferred directly to the mailbox, and the caller hears the mailbox owner's personal greeting. One situation that this rule does not accommodate, however, is when the phone system sends an Auto Log-in code.

The Auto Log-in code is sent when a mailbox owner uses a Message Waiting Retrieval button or dials a Message Retrieve code from his/her telephone. By pressing this button or using this code, the owner is attempting to access the voice mail gateway to log in to his/her mailbox. Using the previous example, assume that the telephone system sends a **9** as the Auto Log-in code. The translation rule needed is shown below:

XXX9=#,XXX

This rule translates as "for any three digits received followed by the digit **9**, remove the **9**, insert the digit
(since the DESTINATION FOR DIGIT # is set on ROUTING BOX screens to go to box 9992, which is the voice mail gateway. The VP system is to then redial the three digits received from the phone system, which indicates the extension number.

To create a TRANS.TXT file that accommodates the two rules created for the above example, you must be aware that the VP system reads the TRANS.TXT file from top to bottom, executing the first rule it finds that matches the incoming digit sequence. Therefore, you must list the most specific rule at the top of the file and the least specific rule at the bottom of the file.

Note:	In the translation table TRANS.TXT, the most specific rules must display at the top of the file, descending to the least specific at the bottom of the file.

The TRANS.TXT file for the example discussed above must list the rule for the Auto Log-in code before the more generic rule for Reason codes 6 and 7:

XXX9=#,XXX
XXXY=XXX*,*

The first statement is the most specific, since the Reason code is specified as a **9**. In the second statement, the Reason code **Y** represents any digit. Since the VP system reads this table from the top down, it matches the rule for the Auto Log-in digit **9**, first, if that is the digit sent by the telephone system. If that is not the digit sent, the second rule is applied (in this example, for digits 6 or 7). If these two statements were reversed in order, the system would never perform the Auto log-on call to box 9992, as the code **1649** when sent from the phone system, would be matched first with the XXXY rule, which would send the call to the mailbox personal greeting.

As a final point to this example, consider an example where Reason codes are sent as the last digit and the system includes variable length mailbox numbers. All of the rules for digit translation still apply. It need only be noted that the longest digit strings should be listed first in the table and the shorter digit strings last. In the example discussed above, if the system used both 3 and 4 digit mailboxes, the translation table would include four entries:

XXXX9=#,XXXX
XXX9=#,XXX
XXXXY=XXXX*,*
XXXY=XXX*,*

The first two rules are similar to the last two, but the first two are more specific. Therefore, they are placed first in the TRANS.TXT file. Length is the second consideration. Considering the two rules that specify the digit 9, the rule with the longer character sequence must be placed first. The same logic applies when ordering the last two rules.

Reason Codes Sent First (As a Prefix to Extension Number)

If you have not already, review section 7.13. The scenario and examples discussed previously are used here, except this section considers how translation rules are affected when the Reason code is sent *before* the extension number. With this in mind, consider the scenario where the VP system transfers a caller to extension 164 and that extension is busy. If the Reason code is sent first by the telephone system, the telephone system forwards the call back to voice mail with the digits **6164**.

In almost every case where Reason codes are sent before extension numbers, you can use the default wildcard characters (where a character such as **X** equals any number of digits). This is possible since the Reason code match is made before an extension number match, and the two are never confused. The only exceptions to this standard involve cases where other types of integration signaling (such as C.O. identifier codes) or D.I.D. lines are in use on the system and therefore, there are dialing plan conflicts.

Consider first, the scenario where there are no other types of integration signaling. There are three general translation rules that both allow the system to recognize the three Reason codes discussed earlier and work for extension numbers of any length:

6X=X*,*
7X=X*,*
9X=#,X

These three rules work even if the system uses C.O. identifier codes and/or D.I.D. lines, as long as they do not begin with **6**, **7**, or **9**.

D.I.D Line Considerations

Consider the following scenario, which illustrates how you modify translation rules to accommodate systems on which D.I.D lines *do* conflict with digits **6**, **7**, or **9.**

Assume the telephone system has all three-digit mailboxes (and extensions). The system is also receiving D.I.D digits that begin with 6 (600 - 699). First, the translation table wildcard characters must be modified to represent single digits. As discussed earlier, you do this by entering **512** in any CUSTOM field on the OTHER CUSTOMIZATIONS screen (DOSVP systems) / CUSTOM FLAGS screen (WINVP systems). This modification forces you to update the translation rules so they now read as follows:

6XXX=XXX*,*
7XXX=XXX*,*
9XXX=#,XXX
XXX=XXX

If the VP system receives a D.I.D. number during the initial pause, **656**, for example, it is matched to the fourth rule in the table and is not confused with a call that was forwarded from a busy extension. In this case a busy extension is represented by a total of 4 digits (6XXX). When a three-digit number is sent to the VP system, it is interpreted as simply an extension number, even though it begins with a 6. And since this is a new call (just received via a D.I.D. trunk) that includes no Reason code, the VP system passes the digits through the table without modification. The call is transferred to the mailbox owner's extension.

As noted earlier, you can use up to twelve wildcards in the translation table (**N** and **P** through **Z**), but all codes have the same digit representation characteristics. By default, each code can be used to represent *any number of digits*. If CUSTOM is set to **512** on the OTHER CUSTOMIZATIONS screen (DOSVP systems) / CUSTOM FLAGS screen (WINVP systems), however, one code represents only a single digit.

C.O. Line Identifier Digits (Trunk I.D.) Considerations

If all of the central office lines are to be answered by the same initial greeting, you *do not* need C.O. line identifier digits.

Consider, however, a company that has two groups of C.O. lines, each with a unique telephone number, for example, 555-1212 for Sales, 555-3434 for Service. The Sales department has 6 lines, designated as C.O. lines 1 - 6 in the telephone system, and the Service department has 5 lines, designated as C.O. lines 7 - 11.

Assume the telephone system does not provide options for assigning I.D. digits. When they are used, they are automatically assigned an I.D. that is the same as the C.O. line number (starting at 01 for line 1, 02 for line 2, etc.). The Sales department's main greeting is in Routing box 500, and the Service department's main greeting is in Routing box 501.

To specify translation rules for these C.O. line identifier digits in the TRANS.TXT file, you make the following entries:

```
01=500
02=500
03=500
04=500
05=500
06=500
07=501
08=501
09=501
10=501
11=501
```

These rules are specified at the top of the TRANS.TXT file, since they are more specific than any rules that use wildcard characters.

Now assume the C.O. line identifier digits sent by the telephone system *are* programmable (they can be selected by the installer). In many cases where the lines are programmable, the programmer can choose any number that is either two-, three-, or four-digits (length may be dictated by the phone system) to assign as an I.D. for each trunk. When specifying translation rules in this case, you can keep the TRANS.TXT file as simple as possible by assigning a unique series of I.D. digits to each grouping of trunks.

For example, if the telephone system allows you to assign any three-digit number as a trunk I.D (these I.D.s *cannot* conflict with the station extension numbers) you can assign trunks 1 - 6 (the Sales department) I.D. numbers 300 through 305, and trunks 7 - 11 (the Service department) I.D. numbers 400 through 404.

The TRANS.TXT file now reads as follows:

```
300=500
301=500
302=500
303=500
305=500
400=501
401=501
402=501
403=501
404=501
```

Since each group of trunks is using a unique series of numbers, you can simplify the file using wildcard characters:

3XX=500
4XX=501

Note that in this example, one of the CUSTOM fields on the OTHER CUSTOMIZATIONS screen (DOSVP systems) / CUSTOM FLAGS screen (WINVP systems) needs to include the **512** entry discussed earlier, to stipulate that each wildcard character represents *one* digit, not *any number of digits*.

> **Note:** The VP system defaults to begin accepting in-band (DTMF) digits 500 milliseconds after answering the call. Some telephone systems may begin sending digits before the 500 ms has passed, so the VP system may miss them. If you find that the VP system is missing digits at the beginning of a call, you can lower the 500 ms time to 300 ms by entering the following line in the configuration file VM.CFG:
>
> ```
> OFFHOOK DELAY = 300
> ```
>
> If this does not correct the problem, refer to section 9 for information on using TRACE functions. TRACE can help you determine if the VP system is receiving all or part of the expected incoming digits.

Using TRANS.TXT and Reason Codes to Play Specific Greetings

Previous material in this section focuses on sending calls with Reason codes (except those with the Auto Log-in code) directly to the mailbox, where callers hear the mailbox's personal greeting. If the mailbox owner has recorded multiple greetings, however, you can further modify TRANS.TXT to specify which greeting the caller is to hear. The technique you use to set this up depends on the transfer type used by the mailbox:

WAIT FOR RING

When the mailbox's TRANSFER TYPE field is set to WAIT FOR RING, if the extension is busy and the calling party decides to leave a message, he/she hears the currently active personal greeting of the mailbox. When the VP system plays the greeting, it has not yet released the call, but it has canceled the transfer process in response to a busy signal. Consider the following example with Mary, who owns mailbox 128.

> The VP system transfers callers to Mary anytime it can ring her extension (WAIT FOR RING transfer). It does not transfer a call if it detects Mary's extension is busy. If the call is not answered, the telephone system forwards the unanswered call back to the VP system and supplies Mary's extension number. In this case, the only time a call is returned to the VP system from a mailbox using WAIT FOR RING transfers is under the no-answer condition. (A Reason code is not needed to supply this information).

Mary can record a greeting that plays specifically under this circumstance. The greeting may be worded as follows:

"Hi, this is Mary. I'm either away from my desk or out of the office. Please leave a message and I will return the call as soon as I return."

If Mary records this greeting as, for example, greeting 2 in her mailbox, you can specify the following translation rule, which instructs the VP system to play greeting 2 when it receives a no-answer call from Mary's extension:

128=128*,*:G2

If the telephone system *does not* supply Reason codes, you can modify this rule for system-wide usage by simply substituting wildcard characters:

XXX=XXX*,*:G2

If the telephone system *does* supply Reason codes, simply add the ring-no-answer Reason code to the above rule. For example, assume the telephone system uses the prefix digit 7 as the no-answer Reason code. The translation rule is now specified as:

7XXX=XXX*,*:G2

Not all mailbox owners may care to have two separate greetings. If a greeting requested by a TRANS.TXT rule does not exist (has not been recorded), the VP system plays the currently active personal greeting for that mailbox.

BLIND

Building upon the example discussed above, assume that Mary's mailbox is using BLIND transfers, that she has recorded a "busy" greeting as greeting 0, and the telephone system uses the prefix digit 6 to indicate that a call has been forwarded in the busy condition. Two TRANS.TXT rules are now required for Mary's extension:To play specific greetings by reason when a mailbox uses a BLIND transfer, the telephone system must provide Reason codes. The VP system makes BLIND transfers unconditionally and does not listen for a busy signal. Therefore, the telephone system must supply some distinguishing information about the call when it returns it to the VP system in a busy or no-answer condition.

7128=128*,*:G2
6128=128*,*:G0

As described earlier, you can use wildcard characters instead of specific rules for each extension:

7XXX=XXX*,*:G2
6XXX=XXX*,*:G0

When these translation rules are included in the TRANS.TXT file, any mailbox owner can take advantage of this greeting feature as long as he/she records a "busy" greeting as greeting 0 and a "no-answer" greeting as greeting 2. If the greeting called for in the TRANS.TXT rule has not been recorded in a particular mailbox, the currently active personal greeting plays.

You can make a translation rule for each Reason code supplied by the telephone system. More that one rule can be directed to play the same greeting, or you can select a different greeting for each rule (up to 10, which is the maximum number of greetings possible for a mailbox).

7.13.5 Specifying Rules for Recording Calls

Some telephone systems have a record-call feature. To record a call, the telephone system calls the voice mail system, conferences it in to an existing call, and passes the voice mail system a packet of digits meaning "record this call." For example, the telephone system may send **** followed by the called party's extension number. To set up the VP system so this code's translation invokes the VP system's call record feature, you include the following line in the TRANS.TXT file:

**X=X,*,*,1,1

On a VP system, if you dial an extension number followed by ***** then *****, then you press **1** then **1**, the VP system plays the recording tone and immediately begins recording. This is the digit sequence specified on the right side of the equation in the rule shown above.

The recorded conversation is stored as a message for the mailbox represented by X.

Disabling the Recording Tone

If you want to prevent the VP system from playing the tone just before recording, add **:N** (for No Beep) to the end of the rule in the TRANS.TXT file:

**X=X,*,*,1,1:N

Note:	The VP system also has a record-call feature (see section 7.24).

7.13.6 Specifying Digit Translation Based on Time of Day

If you want to use different translation rules based on the VP system service mode (Day Service, Night Service, Lunch Service, or Holiday Service), you place the translation rules in separate files as follows:

Filename	Usage
TRANS.DAY	The VP system uses this file while in Day Service mode.
TRANS.NIT	The VP system uses this file while in Night Service mode.
TRANS.LUN	The VP system uses this file while in Lunch Service mode.
TRANS.HOL	The VP system uses this file while in Holiday Service mode.

If the specific file does not exist (for example, if the VP system is in Lunch Service mode, and the file TRANS.LUN does not exist), then the VP system uses the rules specified in the TRANS.TXT file. If TRANS.TXT does not exist, then no digit translation takes place.

7.13.7 Specifying Digit Translation Based on Port Number

If you want to use different translation rules based on the VP system port number on which the call is received, place the translation rules in separate files, one per port. Name the translation files using the convention:

TRANSn.TXT

where n is the VP system port number

For example, to store a separate set of translation rules that are to be used for calls coming in on port 4, put the rules in the file TRANS4.TXT.

If a specific file does not exist (for example, if a call is received on port 3, and the file TRANS3.TXT does not exist), the VP system uses the rules specified in the TRANS.TXT file. If TRANS.TXT does not exist, then no digit translation takes place.

Note: You can use the digit translation based on port and the digit translation based on service mode feature together. For example, if you want to specify a special set of digit translation rules that are to be used only for ports 5 and 6 and only during Night Service mode, you place the rules in two files named TRANS5.NIT and TRANS6.NIT.

The VP system searches for the appropriate translation file in the following order:

1. 1. Looks for TRANS*n.xxx*, where *n* is the port number and *xxx* is the service mode (DAY, NIT, LUN, HOL).
2. Looks for TRANS.*xxx* where *xxx* is the service mode (DAY, NIT, LUN, HOL).
3. Looks for TRANS*n*.TXT where *n* is the port number.
4. Looks for TRANS.TXT.

7.13.8 Specifying Rules for Automatic Logon

If the telephone system sends a unique digit sequence when an extension dials the VP system directly, this digit sequence can be used to automatically log the caller into a mailbox. For example, if the telephone system sends the digit sequence ****123** indicating, "This is extension 123 calling to listen to his/her messages," the VP system can translate this sequence to send the caller to the prompt for his/her password. The translation rule (using wildcard characters) for this is as follows:

**xxx=xxx*,#

The digit sequence shown on the right side of the equation represents the keypresses that a caller normally (by default) dials from the main greeting to access the mailbox's (shown as xxx) password prompt. With this translation rule, someone calling the VP system from extension 123 is prompted to enter the password for mailbox 123.

If you want subscriber's calling in from their extensions to be able to bypass the password entry prompt and go right to the main voice menu for their mailbox, you can modify the translation rule as shown below:

**xxx=xxx*,#,??

The two question marks represent a wildcard password, and they instruct the VP system to bypass the password *provided* the PASSWORD field in the mailbox *also* begins with two question marks (a password of 1234 is entered as ??1234 on the mailbox's MAILBOX screen).

Note:	When including the password bypass characters in the translation rule, remember, that *anyone* calling from extension 123 can access the messages in mailbox 123, without having to enter a password. Also remember that the feature does not function properly unless you modify the PASSWORD field on the MAILBOX screen for each mailbox by including **??** before the entry in the field.

7.14 Setting Up the Dial-by-Name Directory

The Directory box (box 9998) provides callers access to the VP systems dial-by-name directory feature. To allow callers to use the dial-by-name directory box feature, you must provide access to Directory box 9998 via system Routing boxes. By default, this is done by setting the DESTINATION FOR DIGIT * on each ROUTING BOX screen to **9998**.

7.14.1 Using the Dial-by-Name Directory

A caller uses the dial-by-name directory by spelling the last name of the party using the letters on the telephone keypad (for Q and Z, callers are instructed to use the number 1). The VP system looks for a name that matches the letters, then says the name and asks for confirmation. For example:

"Mike Smith. If this is the person you want, press 1."

If more than one name matches the letters entered by the caller, the VP system says each name in turn and asks for confirmation. As each person's name is played, the caller can press 1 to be transferred to that person, press 2 to skip to the next name (this also happens if the caller does not press any key), press 3 to try a different spelling, or press # to exit from the directory area. If the caller presses #, the VP system takes whatever action is specified on the DIRECTORY BOX screen in the field IF NAME NOT FOUND.

When the caller presses 1 to transfer to a person, the VP system (by default) voices the called party's mailbox number, then transfers the call. For example:

"The number is 4127. Please hold for Mike Smith."

You can modify the configuration of the dial-by-name directory, so the mailbox number is not voiced. This is discussed below.

7.14.2 Keeping a Mailbox Out of the Dial-by-Name Directory

If you do not want a mailbox owner's name and mailbox number to be included in the dial-by-name directory, enter an @ symbol as the first letter of the name entered in the LAST NAME field of the MAILBOX screen. For example, to keep Mary Jones out of the dial-by-name directory, access the MAILBOX screen for her mailbox, and change the LAST NAME field from "Jones" to "@Jones."

Also, be advised that if no name is recorded for a mailbox, the mailbox is not included in the directory.

7.14.3 Understanding Dial-by-Name Configuration Options

The following options are available to customize the operation of the dial-by-name directory.

Complete Directory Listing

You can configure the VP system so it provides callers the option of hearing a complete listing of all mailboxes on the system. The caller accesses this feature by pressing * during the Directory box greeting. You can enable or disable this feature on the DIRECTORY BOX screen (section 5.9).

Announce Mailbox Number

You can configure the VP system to announce the mailbox number of the party the caller selects from the dial-by-name directory. If you set up the system to announce the called party's mailbox number, the caller can note it for future reference. You can enable or disable this feature on the DIRECTORY BOX screen (see section 5.9).

Last Name / First Name Option

By default, the dial-by-name directory feature is set up to prompt callers to enter the first few letters of the called party's *last* name. You can, however, configure the system to search based on the letters of the called party's *first* name. Last or first name use is set on a system-wide basis. To use the first name in place of the last name, you must make the following changes to the VP system:

For every person who is to be listed in the dial-by-name directory, reverse the entry of his/her names in the mailbox FIRST NAME and LAST NAME fields. The person's first name should be entered in the LAST NAME field and vice versa.

Change the greeting in Directory box (box 9998) to request the caller enter letters of the called party's first name. This greeting is located in the \VM\M directory. The file has the filename GT009998.GRT (if you are using the multilingual features, see section 16 for the location of voice files in various languages). Pre-recorded optional greetings are listed below, or you can record a new Directory box greeting using the same keyboard access method available for all boxes.

Number of Letters to Request

By default, the VP system asks the caller to enter 3 letters of the called party's last name. You can configure the system to prompt the caller for fewer or more digits by changing the field MAXIMUM NUMBER OF DIGITS on the DIRECTORY BOX screen. Note that the entry specified here represents the maximum number of keypresses the system collects from a caller. The VP system still attempts to find a match if the caller enters fewer digits. The fastest search, however, occurs when the caller enters the exact number of digits requested.

Directory Box 9998 Greetings

The following 4 pre-recorded options are available for use as the dial-by-name directory greeting. All files are located in the VM\M directory. You can make one of the available options active in the system by copying it over the default greeting. For example, you can activate option 3 by accessing the \VM\M directory from a command prompt and typing:

COPY GT009998.OP3 GT009998.GRT

Option	Filename	Contents of greeting
Default	GT009998.GRT	*"Enter the first three letters of the last name of the party you wish to speak with. Use the one button for Q and Z, or press star for a complete directory."*
Option 1	GT009998.OP1	*"Enter the first three letters of the last name of the party you wish to speak with. Use the one button for Q and Z."*
Option 2	GT009998.OP2	*"Enter the first three letters of the first name of the party you wish to speak with. Use the one button for Q and Z, or press star for a complete directory."*
Option 3	GT009998.OP3	*"Enter the first three letters of the first name of the party you wish to speak with. Use the one button for Q and Z."*

Note: If you want to use first names in the dial-by-name directory instead of last names, follow these steps:

1. In each mailbox, insert the owner's last name in the FIRST NAME field, and the first name in the LAST NAME field.
2. Replace the Directory box greeting as described above.
3. Copy over prompt 228 with the optional version you selected above by accessing the \VM\M directory from a command prompt and typing the command:

```
COPY GT09998.GRT  C:\VM\P\SPELNAME.VOI
```

7.15 Setting Up Database Lookups

The VP system has the ability to accept up to 40 digits from the caller, then match these digits to an entry in a specific database. Based on the contents of the database file, the VP system can then perform the following functions:

- Route the caller to a system box (mailbox, Routing box, Question box, etc.)
- Allow a caller to dial a particular digit sequence a pre-determined number of times, after which that sequence is no longer be valid (discussed below in the section detailing the explanation point (!) as a special character)
- Allow callers to rapidly access any location or feature within the VP system by assigning "speed dial" digit strings (discussed below in the section detailing the colon (:) as a special characters)

All databases used with the VP system database lookup feature must be text (ASCII) files, containing one digit string and a box number on each line. Each line can also include special characters to expand the capabilities of the associated Routing box.

7.15.1 Using Database Lookup to Route Calls

To route incoming calls based on the contents of a database lookup file:

1. Construct a database file indicating the keypresses callers can enter and the resulting boxes to which the calls should route. Save the file using a conventional filename (1 to 8 character filename plus a 1 to 3 digit extension). See a DOS manual for information on files and filenames. (See below for information on constructing the database file.)
2. Create a Routing box.
3. Select DATABASE LOOKUP in the Routing box field ROUTE CALL BASED ON.
4. Send calls to this Routing box to access the database. This Routing box is accessed in the same manner as any system Routing box. It can be an Initial Box (as designated in the LINE INFORMATION screen), can be programmed as a DESTINATION FOR DIGIT in another Routing box, as the destination in a GO TO BOX field, etc.

When a Routing box uses a database lookup file to route calls, the DESTINATION FOR DIGIT fields are not used. Therefore, if you want callers to have access to an operator by dialing 0, for instance, then 0 must be included in the database lookup file.

7.15.2 Formatting Basic Database Lookup Files

The first line of a database lookup file must be entered using the following format:

default=XXXX, not found=YYYY, default digits=zzzzzzz

where:
XXXX is a box number (up to 4 digits)
YYYY is a box number (up to 4 digits)
ZZZZ is a sequence of up to 40 digits (or the word "ACCOUNT" indicating the account number stored for the call)

The rest of the lines in the file must be formatted as follow:

ddddddddd,bbbb

where:
ddddd is a string of digits (up to 20) that may be dialed by the caller
bbbb is a box number (up to 4 digits).

The ddddd digits can include wildcard characters, as described below.

You can leave out the comma and the box number (just enter the digits dddddd as described above). If you do, the VP system treats the digits as a *default* entry. Default entries are handled as described in step 2 below.

When the VP system has finished collecting digits from the caller, it opens the database file specified on the box setup screen and looks for a matching set of digits. One of 5 things can happen:

Outcome of Search	Action Taken by the VP System
The caller did not enter any digits	The VP system substitutes the DEFAULT DIGITS from the first line of the file, then performs the database lookup.
No match is found	The VP system routes the caller to the NOT FOUND box number listed on the first line of the file.
A match is found, but there is no comma and/ or box number on that line	The VP system routes the caller to the DEFAULT box number from the first line of the file.
A match is found, and there is a comma and box number on the line	The VP system routes the call to the box number following the comma.
A match is found, there is a comma and box number on the line, plus a colon, followed by extra digits	The VP system routes the call to the box number following the comma, then it acts as if the extra digits were dialed by the caller, taking the appropriate action.

The following example shows a database lookup file using 5-digit Zip Codes (and no special optional characters) to route calls. Line explanations are shown to the right or the lines.

```
default=800, not found=805, default digits=34231
0,888  Callers dialing 0 are  routed to box 888
33444,3000  Callers entering this Zip Code are routed to box 3000
34231,3001 Callers entering this Zip Code are routed to box 3001
33442 Callers entering this Zip Code are routed to default box 800
32222 Callers entering this Zip Code are routed to default box 800
```

Note: If you enter the word "ACCOUNT" for the default digits (DEFAULT DIGITS=ACCOUNT), the VP system uses the account number as the default digits if the caller does not enter any digits. See section 7.23. For example, if the caller's telephone number was collected automatically at the beginning of the call using SMDI, and it was stored as the account number, the VP system uses the caller's telephone number in a database lookup if DEFAULT DIGITS=ACCOUNT option.

7.15.3 Using Special Characters in a Database Lookup File

The Pound (#) Character

Since a caller may dial up to 40 digits in a database lookup Routing box, it is useful to inform the caller in the Routing box greeting that he/she can press # at the end of the dialing sequence. The VP system processes the digits immediately, instead of waiting for additional digits:

"Please enter the account number, followed by the pound sign."

By default, the VP system considers **#** to be an "end of dialing" signal. If you need to use the # as a normal DTMF digit, for example to send a caller to the voice mail gateway, you must enter the custom flag number **32768** in one of the CUSTOM fields of the OTHER CUSTOMIZATIONS screen (DOSVP systems) / CUSTOM FLAGS screen (WINVP systems) (see section 4.11). By specifying custom flag number 32768, you can then enter **#** in the database lookup file as a digit, such as:

#,9992

You will need to enter this custom flag and the entry shown above if box owners are to have access to their mailboxes when their call into the system is Routed through a database lookup Routing box. You must include this entry in the database lookup file since the DESTINATION FOR DIGIT fields on the ROUTING BOX screen are not active in a database lookup Routing box.

If you specify custom flag 32768 on the OTHER CUSTOMIZATIONS screen (DOSVP systems) / CUSTOM FLAGS screen (WINVP systems), **#** is no longer considered an "end of dialing" signal, so you should not instruct callers to press **#** at the end of dialing.

The Exclamation Point (!) Character

If you include **!** as the final character of an entry in a database lookup file, the entry can be accessed only once by a caller, then is automatically deleted.

Assume, for example, you are using the VP system to allow readers of a newspaper's Classified advertisements to call in and access a listed box number. This box is used to provide a description to the caller and/or allow the caller to leave a message. As the owner of the VP system, you have charged the mailbox owner an up-front fee good for 25 replies to his/her classified advertisement. You would then program 25 identical entries in the database lookup table for access to this mailbox:

5276,1002!
5276,1002!
5276,1002!
5276,1002!
5276,1002!
etc.

Each time an outside caller reaches this database lookup Routing box and enters the code 5276, he/she is routed to mailbox 1002, then that entry in the database lookup file is deleted. When all 25 entries have been deleted, the box owner's pre-paid service discontinues, and the caller is routed to the NOT FOUND box. In that box, you record a message such as:

"I'm sorry, that box is no longer in service."

The Semi-Colon (;) Character

You can add comments to lines in the database lookup file and specify that they are to be ignored during lookup operations by placing them to the right of the **;** character on a line. For example:

56423,217;Jones, Fred 316 Main St. Anytown, USA (813) 555-1212

The name, address, and phone number to the right of the **;** character are comments in the file that are ignored during database lookup operations. In this example, these comments identify the individual who was assigned account number 56423 by the company using this feature.

The Colon (:) Character

You can add a **:** character to an entry in a database lookup file to create "speed dialing" digit strings (also referred to as macros) for various VP system functions.

Assume, for example, there is a mailbox owner who recorded six different personal greetings—one for each weekday and one for the weekend. This mailbox owner changes greetings each morning to activate the proper one for the day. These are the steps he/she takes to change the active greeting:

1. Press # to access the voice mail gateway (box 9992).
2. Enter the mailbox number.
3. Enter the password.
4. Press 3 for the Options menu.
5. Press 2 for the Change greeting menu.
6. Press 5 to select a new active greeting.
7. Enter the greeting number (0 through 9).
8. Press # to return to the Options menu.
9. Press # to return to the Main menu.
10. Press # to exit the open mailbox.

To automate this process for the mailbox owner, you can create a database lookup Routing box, then assign a single digit "speed dial" code to the box, which activates a macro dialing string specified in it. The procedure is described below.

Assume the mailbox owner's mailbox is 101 and the password is 6377. First, you create the database lookup file. In the file, you assign a digit for each day of the week. For purposes of this example, assume this digit is the same as the greeting number for each day. If the mailbox owner recorded Monday's greeting as greeting 0, for example, then 0 is the speed dialing digit for Monday.

The database lookup entry for Monday is as follows:

0,9992:101,6377,3,2,5,0,#,#,#

This entry stipulates that once the mailbox owner reaches this Routing box, he need only dial **0** to invoke a macro that changes the greeting to greeting 0, which is the Monday version**.** When the owner dials **0** from the database lookup Routing box**,** the call routes to the voice mail gateway 9992, and the VP system "speed dials" the rest of the digit string, which includes the mailbox number, password, and key sequence normally entered to invoke the Monday greeting then exit the box.

In the above case, the digit string consists of:

101 (the mailbox number)
6377 (the password)
3 (for the Options menu)
2 (for the Greeting options menu)
5 (to select a new active greeting)
0 (to select greeting zero, the Monday greeting)
#,#,# (to exit the open mailbox)

To create speed dialing digits for the rest of the week, you make additional entries to the database file, modifying the first digit (the speed dialing code) and the greeting number selected for the day.

Now assume, you need to provide this mailbox owner an additional feature in this database lookup Routing box—an ability to alternate the number in the TRANSFER TO field on the mailbox's MAILBOX screen between the mailbox owner's inside extension number and home telephone number.

Digits 0 through 6 are now used as speed dialing codes to activate Monday through Friday and weekend greetings. Therefore, you can use digit 7 as a speed dial digit that activates call transfers to the internal extension and 8 as a speed dial digit that activates call transfers to the home telephone number (5551212). The two entries you add to the database lookup file are:

7,9992:101,6377,3,4,1,101,#,#,#
8,9992:101,6377,3,4,1,5551212,#,#,#

When setting up speed dial entries, keep in mind that the digits specified after the colon must correspond exactly to the keypresses the mailbox owner would make to manually execute the action once the owner accessed the voice mail gateway and heard the prompt, *"Please enter the mailbox number.*"

Other programming considerations:

- You can specify speed dialing codes that are more than one digit in length. To invoke a greeting recorded for use on "snow" days by a school, for example, a school administrator can set up a speed dialing macro that is invoked when he/she presses the numbers corresponding to the letters 's-n-o-w' on the phone keypad. You can use speed dialing codes that are up to 40 digits (but longer codes tend to defeat the purpose of the speed dialing feature).
- Any number of mailbox owners can be given access to a database lookup Routing box, but it is recommended that each mailbox owner be assigned his/her own database lookup Routing box. This way, the box and its database lookup file can be customized for an individual owner (with mailbox number and password) and it can be updated when necessary, without disrupting other mailbox owners who would otherwise share the box.
- If the telephone system does not provide a positive means of disconnect, you can include a hang-up box at the end of each speed dial entry. This way, when a mailbox owner accesses a database lookup Routing box, presses a speed dial code to invoke a macro, then just hangs up, the call is routed to a box that hangs-up the call once the macro executes.
- If disconnect supervision is not an issue, you can choose not to include in each macro the # digit, which backs the call out through system menus. By ending the dialing string with the last command—for example, **2** to make greeting two the active greeting—you allow the VP system to play the confirmation prompt. In this example, the caller hears:

"Your current greeting is 2…"

Wildcard Characters in Digits

You can set up database lookup files that include wildcard characters. Wildcard characters serve as placeholders in the database lookup string, each character indicating "match any digit entered at this point." The wildcard characters you can specify are **S**, **T**, **U**, **V**, **W**, **X**, **Y**, and **Z**.

Assume, for example, a database lookup file includes the following line:

333xxx:200

If the caller enters **333000** or **333498**, the call goes to box 200.

Now assume you want to each caller's area code and phone number (a 10-digit number), but you want to route the call based only on the area code (the first three digits). You enter the following line in the database lookup file:

xxxyyyzzzz,200:xxx

In this example, all calls go to box 200. Once in box 200, the VP system re-dials the first three digits of the ten-digit number the caller entered previously. The call is routed from box 200 using these three digits.

7.16 Using Line Groups

There are several VP system features that require the system to place outgoing calls (for example, turning message waiting lamps on and off, calling a pager service, placing message delivery calls). To make these calls, you must allow the system to access one or more of the VP system lines.

> **Note:** The actions the VP system takes to place an outgoing call differ from those taken when the system transfers a call, even if the number the call is transferred to is an external phone number.

You can specify which lines the VP system is to use to make outgoing calls by modifying entries on the LINE INFORMATION screen. To allow the system to use a particular line or lines when making any type of outgoing call, set the field OUTGOING CALLS ALLOWED? to YES for the lines the system is to use.

To identify specific lines that the system is to use for certain outgoing calls, you place lines in *line groups*. The VP system has 4 available line groups: A, B, C, and D. Each line on a system can be placed in any line group or can be placed in several or no line groups.

To place a line in a line group, access the LINE INFORMATION screen. This screen displays information on the first 8 lines on the system (press <F6> to see the next set of 8 lines if the system has more than 8 lines or use the scroll bar on Windows-based VP systems.). The right portion of the screen indicates which lines belong to which line groups. To place line 3 in line group B, for example, press <Enter> until the cursor is in column **B**, and in the third row, then set the field to YES (check the box on Windows-based VP systems).

> **Note:** Assigning a line to a line group (entering YES in the line group A, B, C, or D column) overrides a NO entry in the OUTGOING CALLS ALLOWED field.

You can use line groups in two general ways:

- Allow the VP system to place most outgoing calls using any of several lines (by entering YES in the OUTGOING CALLS ALLOWED? field), and specify a certain line group(s) only to those calls that you want to restrict to certain lines. Use this technique if there are only a few types of calls you want to restrict to certain lines.
- Force all outgoing calls to use only certain lines (by entering NO for all lines in the OUTGOING CALLS ALLOWED? field), and specify a certain line group(s) to be used for each type of outgoing call the system is to make. Everywhere in the system where you specify an outgoing call number the system is to dial, you indicate whether and which line group the system is to use by including the line group in a set of braces{}before the number (for example, {A}5551212).

Assume the VP system has 8 lines, and all outgoing calls are to use any of the 8 lines with the exception of pager calls, which are to use only lines 7 and 8. On the LINE INFORMATION screen, you select YES in the OUTGOING CALLS ALLOWED? field for all 8 lines. This way, any outgoing call can use any line. Next, you assign lines 7 and 8 to line group A by entering YES in the line group A column across from lines 7 and 8. Finally, on the screens on which you enter pager numbers, you use the format {A}xxxxxxx. For example:

{A}5551212

Note:	When pager numbers are changed remotely by mailbox owners, the VP system allows the pager number to be changed, but retains the line group setting.

For any other outgoing call types (message waiting lamps, etc.) there is no need to specify a line group in the number. These call types default to using any of the 8 lines.

If you prefer to designate specific lines for each type of outgoing call, set up the VP system so the largest group of outgoing calls uses the default line group setup. This way, the number of entries you must customize is minimized.

For example, assume again, the VP system has 8 lines. The system is to use lines 1 - 4 to make calls that turn on and off message waiting lights. On the LINE INFORMATION screen, you set the OUTGOING CALLS ALLOWED? to YES for lines 1 - 4 and to NO for lines 5 - 8. Now, you need only enter the message waiting codes on the MAILBOX screen for each mailbox. You do not have to specify a line group, since those calls will be made only on lines 1 - 4.

Now you can restrict other outgoing calls to certain line groups. To restrict pager notification to use only lines 5 and 6, for example, you can place line 5 and 6 in line group A, then include {A} before every pager number entered on the system. To restrict message delivery to use lines 7 and 8, you can place lines 7 and 8 in line group B, then include {B} before the telephone number in each message delivery CALL field.

Note:	If on the LINE INFORMATION screen a line is included in a particular line group (A, B, C, or D), the NO entry in the OUTGOING CALLS ALLOWED? field is overridden when the system attempts to dial an outgoing call using the line group code shown in braces, for examples {A}5551212.
Note:	If you set up the Outbound Telemarketing module to place outgoing calls, you should always assign the lines you want the system to use to a line group, then enter this line group letter In the TELEMARKETING BOX screen. If you do not specify certain lines, the system may use all lines to place outbound calls, thus halting other call traffic.

7.17 Including Time and Date Announcements

You can configure the VP system to say the current time and/or date at almost any point in a call.

To configure the VP system to say the time, you simply create a Routing box and include the word TIME inside brackets [ ] at the beginning of the box name. The VP system plays the Routing box greeting then announces the current time.

Assume, for example, you create Routing box 2000 and specify the name as **[TIME]Current time**. You then record the greeting, *"The time here at the XYZ Company is."* When a call routes to box 2000, the VP system plays the greeting, then plays the current time, for example:

"The time here at the XYZ Company is twelve twenty-six PM."

You can use the same technique to configure the VP system to play the current date. Simply insert **[DATE]** in front of the box name.

Note that a Routing box plays the time or the date, but not both. If you want the system to voice both the time and the date, simply chain two Routing boxes together with the first announcing the time and the second announcing the date. To program this, set up the first Routing box to state the time, and make the following entries on that ROUTING BOX screen:

- Enter 0 in the NUMBER OF SECONDS TO WAIT FOR A DIGIT field.
- In the field IF NO DIGITS DIALED, select GO TO BOX, then enter the number of the Routing box you have configured to say the date.

7.18 Placing Outgoing Calls

If a mailbox owner's assigned class of service permits, the owner can log into his/her mailbox then have the VP system place a call to another number. This feature is similar to the DISA (Direct Inward System Access) feature offered by many telephone systems.

Note:	Before permitting outgoing calls in any class of service, be aware that any long distance (toll) calls placed by mailbox owners using this feature are charged to the Central Office lines used by the VP system. To avoid unwanted charges, you can take one of two actions: 1) Block the feature entirely in a class of service by entering NO in the OUTGOING CALLS ALLOWED field on the CLASS OF SERVICE screen. This blocks only this service, not external call transfers (for example, if the mailbox is set to transfer calls to a cellular phone. 2) Use the class of service RESTRICTION fields to enter specific numbers that the system is to block (for example numbers that start with 1976, 911, and 1900).

See section 4.10 for details on class of service.

7.18.1 Understanding the Outgoing Call Feature

To place an outgoing call, the mailbox owner opens his/her mailbox, then selects option 0 from the Main menu. The VP system prompts the mailbox owner to enter the telephone number to which the call is to be made. The system then makes a conference call to that telephone number using the three-way calling capability of the telephone system. The VP system remains on the line for the duration of the call (see section 7.3).

Mary enters 7001. The VP system says, *"Please enter the password."* Mary enters the password. The VP system replies:Assume, for example, Mary Jones owns mailbox 7001. Mary is out of town, but she wants to place a call to a client in another state. She simply calls her VP system on its toll-free number and routes to the voice mail gateway. The VP system says, *"Please enter the mailbox number."*

"Mary Jones, you have three new messages.
To listen to the messages, press 1.
To send a message, press 2..." and continues offering all the choices available on the Main menu.

Mary presses 0 to place an outgoing call. The VP system says:

"Please enter the telephone number to which you wish to be connected."

If you have created an external dial rule table DIALRULE.TXT (see section7.25), Mary simply enters the 7 or 10 digit telephone number. If you have not created external dial rules, Mary must first dial the digit **1** if she is making a long distance call.

The VP system checks the number Mary enters against the restricted numbers in Mary's assigned class of service. If the number is not restricted, the VP system says, *"One moment please,"* and dials the sequence defined in the SEQUENCE TO INITIATE A TRANSFER - EXTERNAL field on the CALL TRANSFER screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems). Note this not an "outgoing call" as defined in the sense of calls made to pagers or to light message waiting lamps, but it is a transfer to an external number using the three-way conference feature.

The VP system then dials the telephone number Mary specified. The system conferences Mary in on the call by dialing the sequence defined in the field SEQUENCE TO COMPLETE A THREE-WAY CALL on the CALL TRANSFER screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems).

The call terminates when any of the termination events are detected. Additionally, the VP system interrupts the call at regular intervals, and asks the caller to press 1 if he/she wants to continue the call. If the caller does not press 1, the VP system assumes that the call has ended, and disconnects the line.

7.18.2 Using the Monitor Feature with Outgoing Calls

The Monitor feature provides two functions you can use to track usage of the outgoing call feature. Monitor function 21 logs the mailbox number, the number dialed by mailbox owner, the VP system line number used, and the time and date the call is placed. Monitor function 3 logs the time and date the call ends.

Monitor data can be output to a printer or to a file named VOICMAIL.MON. You can use monitor output in conjunction with third-party software to compile reports or billing information. See section 7.1 and 7.2 for complete details on the Call Log and Monitor features.

7.19 Using Data Entry Question Boxes

VP system Question boxes can be set up as data entry devices. Once you define a Question box as a data entry box, all answers collected by the box must be in the form of digits (no voice answers). Digits entered by the caller are stored in a file that can be printed or used in conjunction with other programs to compile order-processing, statistics, or other data. If you use the Question box as a data entry box, the 200-message limit does not apply.

7.19.1 Setting Up a Question Box for Data Entry

To set up a Question box as a data entry box, add the **@** character in front of the Question box name on the QUESTION BOX screen. For example the name "INTERVIEW QUESTIONS" becomes "@INTERVIEW QUESTIONS." Also, in the OWNER field, enter the number of the Question box itself. If, for example, the Question box is number 6500, enter **6500** as the owner of the Question box (except when using more than 10 questions as noted below).

7.19.2 Using More than 10 Questions

Each Question box is limited to 10 questions. If you are using the data entry feature, you can ask more than 10 questions by chaining several Question boxes together. When you chain Question boxes together, the first Question box the caller is routed to is known as the *head* of the chain. This box number is used in the filenames containing the data (see the information on filenames below).

Assume, for example, you want to ask 25 questions on each call. Question box 6500 asks questions 1-10, Question box 6505 asks questions 11-20, and Question box 6510 asks questions 21-25. During a call, the caller is routed to Question box 6500 first, so this will be the *head* of the chain. To set up the chain, you follow these steps:

- Configure all 3 Question boxes as data entry boxes by adding **@** as the first character in the BOX NAME field for each box.
- Record an introductory greeting in box 6500 (if you need one). Do not record a greeting in box 6505 or box 6510.
- In all 3 boxes, set the OWNER field to 6500 (since 6500 is the head of the chain).
- In box 6500, instruct the VP system to route the call to box 6505 after asking questions by setting the GO TO BOX field to 6505.
- In box 6505, instruct the VP system to route the call to box 6510 after asking questions by setting the GO TO BOX field to 6510.

Once the VP system finishes asking all the questions in box 6500, it moves on to box 6505, then to box 6510. When it has asked all the questions in all 3 boxes, it stores the answers in a file. The filenames and file formats are described below.

7.19.3 Specifying an Exit Digit

When you are using a data entry Question box, you cannot predict how many answers each caller will provide. For example, if the Question box is set up to collect orders from callers, you could allow a single caller to place an order with 100 items by creating a series of 200 Question box questions (*"Please enter the item number," "Please enter the quantity,"* each asked 100 times).

If you specify an Exit digit(s) in each Question box, you can instruct callers in the Question box greeting that they can end the question and answer session and continue the call at any point by entering the digit(s) you specify. You assign Exit digits are assigned on the QUESTION BOX screen, see section 5.6. For example, the greeting may be worded as:

"You have reached the ACME Company automated order entry system. Use the telephone keypad to enter your account number, and the item number and quantity for each product you want to order. You may order up to 100 products. When you are finished, you may press star or simply hang up."

You can specify any combination of DTMF digits from 1 to 5 digits in length as the Exit digits. In most cases, it is recommended you simply use *. Using digits 0 - 9 limits their use as entries for account numbers, quantities, etc., and because the # digit is generally used as an "end of dialing" character to speed call processing, it is generally not a good digit to use as an Exit digit.

Once the caller dials the exit digit sequence, the call is immediately routed to the destination box shown next to the AFTER QUESTIONS field.

7.19.4 Providing Confirmation Numbers

You can configure the VP system to automatically issue a confirmation number to each caller who completes a Question box session. The VP system issues a 4-digit numbers between 1000 and 9999 to each caller (when 9999 is issued, the count resets, and the next caller receives confirmation number 1000):

"Your confirmation number is [number]. Press 1 to hear this number again."

After the confirmation number is voiced, the VP system routes the call to the destination box shown next to the AFTER QUESTIONS field. The system also records the confirmation number as part of the record written to the data file and/or printer.

By default, the VP system does not issue confirmation numbers. To activate this feature, include the parameter QBOX USE CONFIRM NUMBERS in the VM.CFG configuration file.

Note that since the confirmation numbers repeat after number 9999 is issued, you may want to be sure you have the ability to search records for both the confirmation number and a date range. Only this way can you recall the record appropriate to a specific caller. Consider, for example, that a Question box that processes 1500 calls per week, repeats confirmation numbers approximately every 6 weeks.

7.19.5 Specifying Data Filenames

When a Question box is used for data entry, the data is stored in a file in the \DATA directory. The name of the file is `DATAxxxx.QBX`, where xxxx is the number of the Question box. (If Question boxes are chained together, the xxxx is the number of the head of the chain).

You can specify a different storage directory in the VM.CFG file using the parameter QBOX DATA PATH. To keep the data files on another drive and directory, for example, M:\STATS, you enter the following line in the VM.CFG file:

QBOX DATA PATH = M:\STATS

7.19.6 Selecting File Formats

Question box data collected from callers is stored in a text file format. You can select one of two formats for the output of the file:

- Vertical file format (default)
- Horizontal file format

Vertical File Format

In the default Vertical format, each answer is stored on a separate line with the time and date displaying above each set of answers. For example, assume there are 3 questions in Question box 6900. Question 1 asks for the caller's telephone number, Question 2 asks for the caller's age, and Question 3 asks for the caller's Social Security Number. After one call, the file DATA6900.QBX is created with the following entries:

(blank line)

+++ 8-15-93 11:06:43

(1000)

777

5551212

45

555389999

+++

The first line is blank, to provide spacing between each set of answers. The second line contains a marker (+++) and the date and time at which the call was processed. The third line shows in parentheses the confirmation number issued for this call (if this feature is in use). The fourth line contains the account number for the call, if it was collected (see section 7.23). The next three lines (lines 5, 6, and 7) contain the answers entered by the caller for questions 1, 2, and 3 respectively. The final line is a marker indicating the end of the set of answers.

After a second call has been processed, the contents of the file are updated:

(blank line)
+++ 8-15-93 11:06:43
(1000)
777
5551212
45

```
346389999
+++
(blank line)
+++ 8-15-93 11:09:55
(1001)
654
5553444
32
211448888
+++
```

Horizontal File Format

The Horizontal file format is most useful if you plan to use third-party software such as a spreadsheet program to sort and re-format the data. With the Horizontal file format, each field is enclosed in quotation marks and fields are separated by commas. The Horizontal file format displays the information in the previous example as follows:

“8-15-93”,”11:06:43”,”1000”,”7772”,”5551212”,”45”,”346389999”
“8-15-93”,”11:09:55”,”1001”,”654”,”5553434”,”32”,”211448888”

To set up the VP system to use the Horizontal file format, enter **2** in the first empty DEBUG field on the OTHER CUSTOMIZATIONS screen (DOSVP systems) / CUSTOM FLAGS screen (WINVP systems) (see section 4.11).

7.19.7 Printing Question Box Data

If a printer is connected to the LPT1 port on the VP system PC, you can set up the VP system to print each set of Question box answers at the end of each call. The data is also still written to the file as described above.

By default, the VP system does not automatically print Question box answers. To activate this feature for use with continuous feed printers, add the following line to the VM.CFG configuration file:

QBOX DATA PRINT

To activate this feature for use with single sheet feed printers (such as a laser printer), add the following line to the VM.CFG file:

QBOX DATA PRINT EJECT

When this feature is used with single sheet feed printers, you can use pre-printed forms for the reports.

7.19.8 Archiving Collected Data

By default, the VP system adds data to the Question box data files until you delete them. Alternatively, you can indicate you want the data files to archive at the end of each day. To specify daily archive, add the following line to the VM.CFG file:

QBOX ARCHIVE

At midnight every night, the VP system moves that day's data files into the archive directory DATA\ARCHIVE. Each data file filename is changed to indicate the date of the data. The archive filename format is:

xxxxmmdd.QBX

where:
xxxx is the Question box number
mm is the month
dd is the day

For example, data archived for Question box 6900 on August 26 is stored in the file DATA\ARCHIVE\69000826.QBX.

7.19.9 Confirming Data Entry Digits

If you set up the Question box to play back digit answers for confirmation, the caller is asked to press 1 to indicate digits were entered correctly. If the caller presses **1**, the digits are stored. If the caller presses some other digit, the VP system assumes the digits are incorrect, and prompts the caller to re-enter them. If the caller does not enter a digit, the VP system assumes the digits are correct, and they are stored.

If, however, you want to configure the VP system so if a callers does not enter a digit at the confirmation prompt, the system assumes the digits entered are *incorrect*, add the following line to the VM.CFG file:

QBOX POS CONFIRM

In this case, if the caller does not respond to a request to press 1, the VP system will not store the digits, and instead, move on to the next question.

7.19.10 Summarizing Available Options

VM.CFG Option	Description	Default
QBOX DATA PATH	Specifies the path where collected data is to be stored.	DATA
QBOX DATA PRINT	Tells the VP system to print a copy of the collected data at the end of each call to a continuous form printer (must be connected to LPT1).	Printing is off.
QBOX DATA PRINT EJECT	Tells the VP system to print a copy of the collected data at the end of each call to a single-sheet printer (must be connected to LPT1).	Printing is off.
QBOX POS CONFIRM	If the VP system asks the caller to confirm an answer, then does not detect a response, it discards the digits.	If no response, store the digits anyway.
QBOX ARCHIVE	Tells the VP system to take each day's collected data and move it to an archive directory.	Do not archive the data, just keep adding to the same file every day.
QBOX USE CONFIRM NUMBERS	Tells the VP system to issue confirmation numbers.	No confirmation numbers issued.

7.20 Setting Up TDD Device Support

The VP system can communicate with Telecommunications Devices for the Deaf (TDD). To set up this feature, simply think of the tones generated by the TDD as a different language, and use the VP system's multilingual capabilities (see section 7.12).

7.20.1 Setting Up TDD Support on DOS-based VP Systems

On DOS-based VP systems, to set up the TDD system prompts, run the DOS-based VP system prompt recording utility (see section 15), and choose Language 2. When you select to record the first prompt, the VP system asks you to call in on line 1. Make the call from a TDD in the normal manner. Once the call has been accepted by the VP system, you can start recording the prompts:

To record TDD prompts on DOS-based VP systems:

1. When you hear the tone to record, slowly type the contents of the prompt from the TDD.
2. Press <Enter> on the *computer* keyboard when you have finished typing.
3. Repeat this procedure for each prompt you want to record.

You can record Routing box greetings, mailbox greetings, and other system prompts using this technique.

To make necessary TDD adjustments to the VM.CFG configuration file:

1. Indicate to the VP system that you are using more than one language, by including the following line in the VM.CFG file (see section 12):

   LANGUAGES=2

2. For each telephone line connected to the VP system, add a line in the VM.CFG file telling the VP system not to ask the caller to choose a language:

   `FIXED LANGUAGE = <line number>, 1`

3. Add a line to tell the VP system that it is providing TDD support:

   TDD AUTO

This entry forces the VP system to play a TDD prompt after the initial greeting saying, *"Press 8 for TDD service."* (This prompt is not voice—it is TDD tones). The VP system also assigns **8** as the TDD digit. When the VP system is in a Routing box, it responds to this digit by changing languages to the next language (the TDD language). The process flow is as follows:

While the VP system is playing a Routing box greeting, it is monitoring the line for digits from the caller. If the caller presses 8, the VP system looks at the field DESTINATION FOR DIGIT 8 in the Routing box. If this field contains a box number, the VP system routes to that box (routing takes precedence over TDD operation). However, if the DESTINATION FOR DIGIT 8 field does not contain a box number, the VP system processes the 8 digit as a TDD digit. It stops playing the greeting in the current language and begins playing it in the next language. If the caller was listening to Language 1, the VP system begins playing Language 2. Note that if the caller repeatedly presses 8, the VP system remains in the same box, cycling through each language set up on the system has recorded.

See section12 options for more information on these VM.CFG file options.

7.20.2 Setting Up TDD Support on Windows-based VP Systems

On Windows-based VP systems, you must use an additional hardware component to set up TDD prompts. This piece of hardware allows you to connect the TDD device to the microphone port on the VP system PC, thus allowing you to use the NTPROMPT recording utility to record TDD system prompts as you do other system prompts. For information on obtaining the required hardware and using it with the TDD device to record TDD system prompts, contact technical support.

Once you enter TDD prompts on the VP system, you must also make adjustments to the VM.CFG configuration file. Do so as described in the preceding procedure.

7.21 Using the VP System as a Fax Switch

If you have a fax machine connected to an extension of the telephone system, the VP system can automatically transfer incoming fax transmissions to that extension. The VP system recognizes fax tone during the initial greeting and performs the immediate blind transfer to the fax extension.

The incoming caller must be informed that he/she should start the fax transmission as soon as the VP system answers:

"Thank you for calling the ACME Company. If you are sending a fax, please press Start now. Otherwise, you may enter the party's extension, or press star for a directory."

Use the following instructions to make necessary system modifications for fax tone transfers.

7.21.1 Configuring Systems Using Rhetorex Boards

If the VP system is a DOS-based system using Rhetorex voice boards, note the following considerations and complete the steps to add the fax tone to the ACCUCALL tone file.

The VP system must detect at least 3 cycles of incoming fax tone before initiating the transfer. At the most, this takes about 13 seconds. You should make sure that the initial Routing box greeting is at least that long to allow the VP system to detect an adequate sampling of the fax tone. If you use a greeting similar to that shown above to prompt callers to press the Start button on their fax machines, be sure to include additional verbiage in the greeting that extends its length at least 13 seconds after the *"press Start"* instruction. Note that the VP system must detect all 3 cycles of fax tone during one single greeting, therefore you cannot reach the 13 second rule by chaining two Routing box (and hence, Routing box greetings) together.

To add the fax tone to the ACCUCALL tone file:

1. Exit the VP system program. At the \VM prompt, type `ACCUCALL` then press <Enter>.
2. From the MAIN MENU screen, press <F7> (for Files) then enter the name of the file where the current tone tables are recorded. If you do not know the name of the file, temporarily exit ACCUCALL and start the CONFIGUR program. From CONFIGUR, you can view the filename. Exit CONFIGUR, restart ACCUCALL, and indicate the filename.
3. Press <F7> again to load the file into the program. When the file has loaded, you see the existing tones displayed on the MAIN MENU screen.
4. Press <F8> to go to the EDIT TONES screen. Enter the following data:

```
NAME                Fax Tone

TYPE                  Ring1

TERMINATING            Yes
CADENCE                 No
FREQUENCY1            1080
FREQUENCY2            None
PCPMCODE                16
ON TIME              528 ms
ON MAX VAR        592ms12%
ON MIN VAR        464ms12%
OFF TIME            2992ms
OFF MAX VAR      3376ms13%
OFF MIN VAR      2608ms13%
```

5. Once you add these values, press <F8> then <F8> to add the tone.
6. After the tone has been added, press <F10> to return to the MAIN MENU screen, then press <F3> to access the FILTERS screen.

7. On the Filters screen, add the frequency **1080** to the Filters table, and change the INBAND RATIO parameter to **-3db**. When these changes have been made, press <F10> to return to the MAIN MENU screen.
8. Save the information to the tone file by pressing <F7> to see the original filename, then pressing <F8> to save the current data to that filename.
9. Exit the ACCUCALL program by pressing <F10>.

7.21.2 Modifying the Configuration File

To configure the VP system so it can function as a fax switch, you must make the following adjustment to the VM.CFG configuration file (whether the system is using Dialogic or Rhetorex voice boards):

`TONE = 16,x` (where `x` is the mailbox number being used to transfer calls to the fax machine)

See section 12 for VM.CFG information. Setup considerations for this mailbox are detailed in the next section.

> **Note:** After saving the modifications to the VM.CFG file, you must re-boot the computer for the changes to take effect.

7.21.3 Creating a Fax Switch Mailbox

You must create a new mailbox (using the number just entered into the VM.CFG file) that transfers incoming fax calls to the fax machine. When you set up the fax switch mailbox, make the following two entries on the MAILBOX screen:

- In the FIRST NAME field, enter the **&** symbol as the first character (for example, "&Fax"). This prevents the system prompt, *"Please hold while I transfer the call..."* from playing.
- In the TRANSFER TYPE field, select BLIND.

7.22 Setting Up Multiple Operator Mailboxes

7.22.1 Providing Callers Access to the Operator Mailbox

Whenever callers are in certain Routing boxes or in mailboxes, you can provide them the option of speaking with an operator. It is strongly recommended you provide operator access from every possible Routing box and mailbox. By doing so, you make callers more comfortable with the VP system by ensuring them they can exit to a "live" attendant at virtually any time.

- **Routing Box Operator Access**—In every Routing box that routes calls based on either Digits Dialed or Database Lookup, you can give callers the option to press **0** to reach an operator. For Routing boxes using Digits Dialed routing, specify the mailbox to which the VP system is to send "operator" calls in the field DESTINATION FOR DIGIT 0. Be sure to inform callers of the

operator access option in the greeting voiced by the Routing box. You can specify the same operator mailbox in several Routing boxes or you can specify a unique mailbox on each ROUTING BOX screen. For information on setting up Routing boxes based on Database Lookup (and providing access to an operator in Routing boxes set up this way), see section 7.15.

- **Mailbox Operator Access**—When callers are listening to a mailbox owner's personal greeting (or the system default greetings if no personal greeting is recorded), you can give them the option to press **0** to reach an operator (see section 5.5 for a list of all options available to callers while listening to a mailbox greeting). The destination mailbox for the operator access option is determined by the mailbox's assigned class of service. Each class of service can designate an Operator box for both Day Service and Night Service mode (as specified on the BUSINESS HOURS screen). Since there are 8 available classes of service, you can specify up to 16 different operator mailboxes (eight in for the Day Service mode and 8 for the Night Service mode). Or you can specify the same operator mailbox in multiple classes of service. See section 4.10 for more information on setting up classes of service.

7.22.2 Selecting Operator Box Greetings

A default operator mailbox is included with the VP system database as mailbox 888. You can use this box as the operator mailbox throughout the system, or you can create another or additional operator boxes. If you set up other operator mailboxes, you can copy the default greeting used in box 888 to these other boxes. The file you copy, GT000888.GRT, and two other files containing prompts relating to the operator feature are shown below.

Type	Filename	Contents
Operator Name	NM000888.NAM	"The Operator"
Default Operator Greeting	GT000888.GRT	"The Operator is unavailable right now. To try another extension, press 3, or stay on the line to leave a message."
Operator Greeting Option 1	GT000888.OP1	"The Operator is unavailable right now. To try another extension, press 3, or press 1 if you would like to leave a message."

These voice files are located in the \VM\M directory. To copy the default operator box greeting in mailbox 888 to a new mailbox, for example, mailbox 100, access the \VM\M prompt and type:

```
COPY  GT000888.GRT  GT000100.GRT  <Enter>
```

To use the Option 1 greeting in either the default operator mailbox 888 or another box you create, access the \VM\M prompt and copy the file GT000888.OPT. For example, to copy the Option 1 greeting over the default greeting for box 888, type:

```
COPY  GT000888.OPT  GT000888.GRT  <Enter>
```

See section 16 for complete information on how the VP system names and stores the system's voice files.

Note:	In the sample database shipped with the VP system, the operator mailbox 888 is set up to record a message immediately after playing the greeting (see above). If you do not want the system to record a message automatically, use the Option 1 prompt for the greeting in the mailbox, and set the Operator mailbox AFTER PLAYING GREETING field to WAIT FOR DIGIT. The VP system takes a message only if the caller presses 1 in response to the greeting.

7.23 Using Account Numbers

Each call can have an *account number* associated with it. The account number can be the caller's telephone number, the caller's account number, etc. At the beginning of the call, the account number is blank. Once an account number has been collected, it is stored for the duration of the call.

7.23.1 Collecting Account Numbers

There are several ways to collect the account number for the call:

- If the telephone system supplies the identity of the caller via DTMF, the VP system can store this as the account number.
- If the telephone system supplies the identity of the caller via a serial-link (for example, Centrex SMDI), the VP system can store this as the account number.
- You can configure the VP system to ask the caller to dial his/her account number (using an Account Number box, as described in section 5.11).

Collecting the Account Number as DTMF

If the calling party's telephone number is supplied as part of a sequence of DTMF digits at the beginning of the call, you can use the digit translation file TRANS.TXT to tell the VP system to use the telephone number as the account number.

For example, assume the telephone system sends the following digit sequence at the beginning of the call:

`*5551234#2545#` where `5551234` is the calling party's number and `2545` is the called extension

You add the following line to the TRANS.TXT file to tell the VP system that the first number is to be stored as the account number:

xxxxxxx#yyyy#=yyyy,*:CALLER=x

See section 7.13 for more information on digit translation and the TRANS.TXT file.

Collecting the Account Number from the Serial Link

When the VP system analyzes start-of-call data packets on the serial link, it converts each packet to DTMF digits, which are then used by the TRANS.TXT file. An example TRANS.TXT file set up to translate serial link packets is as follows:

```
A#X#=X*,*
B#X#=X*,*
C#X#=X*,*
AY#X#=X*,*
BY#X#=X*,*
CY#X#=X*,*
DXD=X,*,#
```

If you want to use the calling party's telephone number as the account number, you modify the file as follows:

```
A#X#=X*,*
B#X#=X*,*
C#X#=X*,*
AY#X#=X*,*:CALLER=Y
BY#X#=X*,*:CALLER=Y
CY#X#=X*,*:CALLER=Y
DXD=X,*,#:CALLER=X
```

See section 7.13 for more information on digit translation and the TRANS.TXT file.

7.23.2 Using Account Numbers in System Operations

A call's account number can be used in several places by the VP system:

If the caller leaves a message during the call, the account number is stored with the message. The mailbox owner hears the account number. If this is a telephone number, the owner can choose to have the VP system transfer to that number.

The account number can be used as input for the Routing box database lookup feature. Add the words DEFAULT DIGITS=ACCOUNT at the end of the first line in the data file. See section 7.15 for more information on the database lookup feature.

- The account number is stored as part of Question box data entry information.
- The account number is stored in the log file.
- The account number is displayed with the call in VCM.
- The account number can be used as input in IVR applications.
- The account number is included on Talking Classifieds reports.
- On an outbound telemarketing call, the called number is stored as the account number in the log file.

7.24 Recording Calls

You can use the VP system to record calls. Recordings are stored as messages in the mailbox owner's mailbox. You can set up the VP system to record every call, or you can select which calls you want the system to record.

7.24.1 Setting Up Call Recording

Note:	The call recording feature functions only on telephone systems that are capable of performing three-way conferences.

To set up the call recording feature in a mailbox, access the CALL TRANSFER screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems), and verify the field SEQUENCE TO TRANSFER A THREE-WAY CALL is completed accurately.

Access the MAILBOX screen for the mailbox in which you are activating the call record feature. If you want the mailbox to record every call, set the field RECORD CONVERSATION to YES. If you want the mailbox owner to choose which calls are to be recorded, and also change the field TRANSFER TYPE to SCREEN.

7.24.2 Specifying Calls to be Recorded

The VP system can record only calls that were transferred to the extension by the VP system.

If you set up the mailbox to record every call, the mailbox owner takes no action to record calls transferred to his/her extension. All calls are recorded and stored as messages in the mailbox.

If you set up the mailbox to provide the caller the option of recording a call, when the mailbox owner receives a call, the VP system places the caller on hold and plays the call screening prompt to the mailbox owner:

"I have a call for you.
Press 1 to take the call.
Press 2 if you would like me to take a message.
Press 3..."

At this prompt, the mailbox owner can press 6 to initiate the call record feature. If the mailbox owner does not want to record the call, he/she presses 1 to take the call without recording it.

When the VP system is to record a call, it transfers the call then looks in the field SEQUENCE TO TRANSFER A THREE-WAY CALL on the CALL TRANSFER screen (DOSVP systems) / PBX INFORMATION screen (WINVP systems). It dials this sequence and remains on the line. The calling party, called party, and VP system are conferenced together. The VP system records the conversation and stores it as a message in the mailbox.

7.24.3 Troubleshooting Call Recording

If you encounter problems with the call record feature, verify the telephone system can conference the 3 parties together at the appropriate point in the call. For example, if the mailbox is using the transfer type WAIT FOR RING, the VP system performs these steps:

1. Hook-flash to place the caller on hold.
2. Dial the called extension, and listen for a call-progress tone.
3. If the called extension is not busy, attempt to conference the ringing extension with the calling party (by dialing the sequence in the field SEQUENCE TO TRANSFER A THREE-WAY CALL).

Try these steps yourself from a single-line telephone to confirm the telephone system allows the call to be conferenced. If it does not, you may not be able to use the recording feature. For additional information, contact customer support.

7.25 Specifying Dial Rules

When the VP system is making an outgoing call, it often does not know if the number it is dialing is complete. This may occur when the system is making:

- An outgoing call for a mailbox owner as described in section 7.18 and the VP system asked the caller to enter the telephone number.
- A telemarketing call (as part of the optional Outbound Telemarketing module) and the VP system gets the telephone number from an external file.
- A fax distribution call (as part of the optional Fax Distribution module) and the VP system asks the caller to enter the number of his/her fax machine.

In these cases, the VP system needs to determine if:

- The number contains an area code
- The area code is necessary for the call to placed from the location the VP system is dialing
- A prefix set of digits must be added to the number.

You can inform the VP system when to insert digits and remove digits from a number it is to dial by creating the file DIALRULE.TXT. Each time the VP system is about to make one of the call types listed above, it looks for a file with this name. If the file exists, the VP system scans the file for information on whether digits are to be inserted into or removed from the number.

The file should be a standard text file, containing the rules for dialing as specified below. There are 3 types of rules: Insert rule, Delete rule, and Append rule. The DIALRULE.TXT file can contain several rules of each type.

7.25.1 Using the Insert Rule

The Insert rule tells the VP system to insert certain digits when it sees a number beginning with the specified digit sequence. The Insert rule format is as follows:

+abc
digits
digits
digits
.

where:
`abc` are the digits to be inserted (up to 20 digits)
`digits` are the digits users might dial that require the insertion of the `abc` digits (the letter X in this field represents “any digit”)

Note that the rule ends with a line containing a single period.

7.25.2 Using the Delete Rule

The Delete rule tells the VP system to delete a certain number of digits when it sees a number beginning with the specified digit sequence. The Delete rule format is as follows:

```
-n
digits
digits
digits
.
```

where:
`-n` is the number of digits to be deleted from the beginning of the dialed number
`digits` are the digits users might dial that require leading digits to be deleted (the letter X in this field represents “any digit”)

Note that the rule ends with a line containing a single period.

7.25.3 Using the Append Rule

The Append rule tells the VP system to append certain digits to the end of a number when it sees a number beginning with the specified digit sequence. The Append rule format is as follows:

```
:abc
digits
digits
digits
.
```

where:
`abc` are the digits to be appended (up to 20 digits)
`digits` are the digits users might dial that require the `abc` digits to be appended (the letter X in this field represents “any digit”)

Note that the rule ends with a line containing a single period.

7.25.4 Understanding a Dial Rules Example

Assume the VP system is located in an area where the following dialing rules apply:

- The local area code is 919.
- Calls to numbers outside the 919 area code must be prefixed with a 1.
- Calls to most locations within the 919 area code require that 919 digits are not included (exceptions are listed below).
- Calls to numbers that are within the 919 area code, but that begin with 555, are toll calls and must be prefixed with a 1.
- Calls to numbers that are within the 919 area code, but that begin with 432, must include the 919 digits.

To convey this information to the VP system, you create the file DIALRULE.TXT and include the following information:

`+1`	Denotes the beginning of Insert rule.
`xxx-xxx-xxxx`	Tells the VP system to insert a **1** for all 10-digit numbers.
`555-xxxx`	Tells the VP system to insert a **1** for all 7-digit numbers beginning with 555.
`.`	Denotes the end of the rule.
`-4`	Denotes the beginning of the Delete rule.
`1 919 xxx xxxx`	Tells the VP system to delete the leading 4 digits from 11-digit numbers beginning with 1919.
`.`	Denotes end of rule.
`+1919`	Denotes the beginning of the Insert rule.
`432-xxxx`	Tells the VP system to insert digits **1-919** for all 7-digit numbers beginning with 432.
`.`	Denotes end of rule.

Note that the *order* of these rules is important, since the VP system processes each rule in turn, modifying the original telephone number as it goes.

Using this example, assume the caller enters the number 919-222-1234 as the number of his/her fax machine. The VP system examines the first rule in the file, and sees that all 10-digit numbers should be prefixed by a 1. It changes the number to 1-919-222-1234. Now the VP system examines the second rule, which states that 10-digit telephone numbers beginning with 1919 should be stripped of their first 4 digits. The VP system deletes the first 4 digits, and the new number is 222-1234. The VP system examines the last rule, which states that 7-digit numbers beginning with 432 should be prefixed by the digits 1919. Since the number is 222-1234, the rule is not applied.

7.26 Setting up Network Messaging and External Call Transfers Between VP System Sites

VP systems can perform network messaging and external call transfers between VP systems across locations. Using these features, you can set up VP systems at multiple sites so subscribers at each location can:

- Send messages from their boxes directly to mailboxes at other sites
- Forward messages to mailboxes across sites
- Include mailboxes across sites in group distribution lists
- Transfer calls made to one location into mailboxes (or to extensions) at other sites (provided the phone system allows external call transfers)

To set up network message delivery and/or external call transfers between sites, you configure all sites to use the same mailbox structure, assigning unique mailbox numbers to each subscriber across all sites to be networked. You then indicate special entries in the MESSAGE DELIVERY and/or TRANSFER TO fields in the mailboxes at each site that are assigned to owners at other sites. The following scenario illustrates the general setup steps.

Assume you are networking together 4 sites, each of which has 100 subscribers who need mailboxes (totaling 400 subscribers). Assume also, that the extension number used by each subscriber is the same as the subscriber's mailbox number.

To set up network messaging and external call transfers across sites:

1. At each site, create 400 mailboxes (the total number of subscribers to be "networked").
2. At each site, assign each mailbox to a subscriber within the four sites. Assign the same mailbox number to the same subscriber at each site. For example, Mary Jones, who works at site A, is assigned mailbox 105 on the VP system installed at each of the four sites, even though she only works at site A.
3. At each site, set up the mailboxes that belong to subscribers who work on-premises at the site to transfer calls directly to the extension number belonging to the subscriber (you can do this by entering **X** in the Transfer To field). Set up any other mailbox features as required by the subscriber.
4. At each site, set up the mailboxes that belong to subscribers who work off-premises at the other 3 sites as follows:

   In the first Message Delivery field of each external subscriber's MAILBOX screen, specify digits and characters so when a message is received in the mailbox the VP system:

   (a) Dials the phone number of the voice mail gateway at the off-premise site where the subscriber (assigned the mailbox) works

   (b) Pauses to allow the VP system at that site to answer the phone (the pause is signified by entering a series of commas in the field)

   (c) Dials the number of the corresponding mailbox at the site, then dials the transfer bypass digits (usually ******), then dials **11** to bypass the mailbox's personal greeting. This sequence transfers the call directly into the mailbox at the site where the subscriber works

   (d) Dials the special character **V**, to deliver the message from the mailbox placing the message delivery call into the mailbox that was just accessed

Now, when a subscriber at one site sends a message to a mailbox that is assigned to a subscriber who works at another site, the mailbox dials the message delivery number, placing a call to the recipient subscriber's VP system and delivering the message to the recipient subscriber's mailbox on that system.

In the Transfer To field of each external subscriber's MAILBOX screen, specify digits and characters so when a call is routed to the mailbox, the VP system:

1. Places an external call, dialing the phone number for the off-premise site's voice mail gateway.
2. Pauses to allow the VP system at that site to answer the phone
3. Dials the number of the corresponding mailbox at that site

This way, a call received at one site for an off-site worker is transferred to the VP system at the worker' true site—then onto the recipient's mailbox and extension number at that site.

Note:	Entering this information in the TRANSFER TO field does not ensure external call transfers will be performed. The external call transfer feature must also be supported by the telephone system. Consult the phone system documentation for information.

With this configuration, all sites essentially communicate as one VP system. Subscribers can call and message other subscribers using the same program features and functions, regardless of whether all parties are on the same site or across multiple sites.

See section 5.5 for information on entering information in the MESSAGE DELIVERY and TRANSFER TO fields on MAILBOX screens.

Configuration Considerations

Be advised of the following points when setting up applications that use network messaging and external call transfers between sites:

- The number of commas you include in MESSAGE DELIVERY and TRANSFER TO fields to indicate pauses in dialing varies between systems and setups. Test applications you set up thoroughly to ensure you include the appropriate number of pause characters in the dialing sequences.
- Whenever an external call transfer is placed, the caller experiences a lengthy pause as the system dials the number for the other VP system, pauses for the system to answer, then transfers to the mailbox then the extension. Some callers may be find the lengthy pause excessive and subsequently hang up.

7.27 Setting Up the Follow-Me Feature

The Follow-Me feature is available on Windows-based VP systems starting with version 11.0. This feature extends the VP system's regular call transfer capabilities to facilitate real-time caller to called party connection.

Each time a call is routed to a Mailbox, the Mailbox looks to the Transfer To field and its associated Schedule field to determine to which number and whether the call should be transferred. If the call arrives outside of the Schedule timeframe or if the call is transferred to the number in the Transfer To field but returned to the VP system, the Follow-Me feature can attempt to transfer callers to up to 10 additional internal and external phone numbers instead of simply playing the mailbox personal greeting to the caller.

A Mailbox must be permitted to use the Follow-Me feature in its assigned Class of Service by activating the FOLLOW-ME field on the CLASS OF SERVICE screen (see section 4.10).

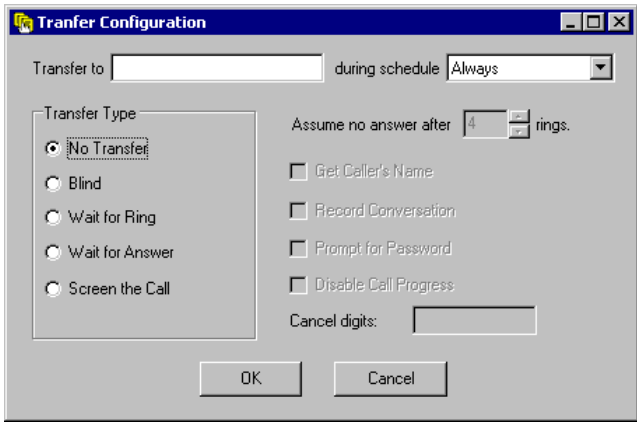
To set up Follow-Me in a mailbox:

1. On the MAILBOX screen, FOLLOW-ME tab, choose whether and when the Follow-Me feature is to invoke:

- **Do Not Follow-Me**—This option disables the Follow-Me feature for the Mailbox. Entries made in other fields of the Follow-Me tab are ignored.
- **Follow-Me Automatically**—If the Mailbox receives a call outside of the Transfer To field's Schedule timeframe or if the call is transferred to the number in the Transfer To field but returned to the VP system, the Follow-Me feature invokes automatically
- **Follow-Me only when caller requests to**—The Follow-Me feature invokes only if, the caller presses 4 when hearing the Mailbox personal greeting. This option is not announced to the caller by default. It must be included by the Mailbox owner in the Mailbox personal greeting he/she records.

  A Mailbox owner who is permitted to use the Follow-Me feature in his/her assigned class of service can review the current Follow-Me number setup and add numbers or remove numbers from the Follow-Me list by logging into the Mailbox over the telephone. To access the Follow-Me Configuration menu from the Mailbox Main menu, the Mailbox owner must press **3** for the Options menu, then press **4** for Call Transfer options, then press **2** to configure Follow-Me features. Additional, more detailed modifications to the Follow-Me configuration, however, must be completed on-screen.

2. Click the Edit button. The Transfer Configuration screen displays. From this screen you to set up Follow-Me phone numbers to be dialed and indicate each phone number's associated configuration parameters.



To complete the TRANSFER TO field, SCHEDULE field, Transfer Type area, ASSUME NO ANSWER option, GET CALLER'S NAME option, and RECORD CONVERSATION option, refer to field descriptions provided for these fields under the Call Transfer tab of the Mailbox setup screen in section 5.5.

Note:	With WAIT FOR ANSWER and SCREEN transfer type selections, the Call Queuing feature is not supported when the VP system is dialing Follow-Me numbers.

The PROMPT FOR PASSWORD field applies only if the SCREEN transfer type is selected. When selected, this option prompts the called party to enter his/her mailbox password after he/she presses 1 to accept the call. The call is not transferred if the correct password is not entered. Instead the VP system attempts to connect the caller to the next number in the Follow-Me number list.

The DISABLE CALL PROGRESS option applies only if the screen transfer type is selected. When selected, this option prevents the VP system from attempting to detect call progress tones, specifically ringing, after calling the Follow-Me number. Instead, the VP system calls the number, then immediately begins to voice the call screening menu options. Select this option if the Follow-Me number the VP system must call has unusual ringing patterns that the VP system may not recognize. Otherwise, if the VP system does not effectively detect ringing, it will not wait for an answer to connect the caller to the number, and will proceed instead with attempting to dial the next Follow-Me number entered on the screen.

The CANCEL DIGITS field applies only if the SCREEN transfer type is selected. The digits in this field are sent to the called number if no keypress response is detected after the call screening menu options are played. Enter cancel digits for numbers that may be answered by voice mail, such as cellular phone numbers, to prevent the called number from recording a message of the VP system voicing the call screening menu. The cancel digits you enter in this field are the digits the voice mail system at the called number requires a caller to press to cancel a message he/she recorded.

3. Once you are satisfied with the entries, click the Ok button. The Follow-Me number and entries you made on the Transfer Configuration screen display as rows on the Follow-Me tab.

You can view and edit schedules for the mailbox and move specific Follow-Me entries up and down in the list of numbers to be called using the buttons to the right of the Edit button on the Follow-Me tab.

7. USING HOTEL INTEGRATION FEATURES

7.1 8.1 Specifying Guest Boxes

Each guest room typically has its own mailbox. However, you normally do not want to offer the same full range of VP system options to hotel guests as you do to the staff. For example, you probably do not want guests to be able to change their call transfer number or message notification number.

To restrict the options available to a mailbox, set the field HOTEL GUEST PRIVILEGES ONLY to YES on the mailbox's MAILBOX screen.

When a guest opens his/her mailbox, he/she hears:

"To listen to your messages, press 9.
For saved messages, press 8.
*Or to schedule a wake-up call, press *."*

This limited menu makes it easy for hotel guests to use the core messaging features of the VP system. If you want to further restrict these options, you can prohibit guests from saving and replaying messages. To do so, use the procedure below.

To limit guest features to new messages and wake-up calls:

1. Add the following line to the VM.CFG configuration file (see section 12 for more information):

   ```
   MENU.MAIN.QUICK OLD = X
   ```

2. Use the prompt recording utility to re-record prompt 264 so that it says:

   "To listen to your new messages, press 9.
   *Or to schedule a wake-up call, press *."*

7.2 Using the Wake-up Call Feature

7.2.1 SCHEDULING WAKE-UP CALLS

A guest can set up the VP system to phone his/her room at a specific time. This feature is typically used to schedule wake-up calls. A guest schedules a wake-up call using the procedure identified below.

To schedule a wake-up call:

1. Log into the mailbox in the normal manner. The VP system plays the main guest menu:

   "To listen to your messages, press 9.

   For saved messages, press 8.

   *Or to schedule a wake-up call, press *."*

2. Press * for the wake-up option. The VP system says, *"There is currently no wake-up call scheduled," or, "We will call you tomorrow at [time previously indicated]. If you would like to change the time, press 1."*
3. Press 1 to change the wake-up time. The VP system says, *"Please enter the hour at which we should call you."*
4. Enter the hour you want to be called or press * to cancel the wake-up call. The VP system says, *"Please enter the minutes."*

5. Enter the minute you want to be called. The VP system says *"Press 1 for AM or 2 for PM."*

> **Note:** You can set up the system so guests must enter the hour in 24-hour format (for example, 8:00 PM is entered as 20:00). Do this using the parameter 24-HOUR CLOCK DISPLAY in the VM.CFG configuration file. If you set up the system to use 24-hour format, the system does not prompt guests to indicate whether the hour they indicated in step 4 is in the AM or PM. See section 12 for information on using this parameter.

6. Press **1** for AM or **2** for PM. The VP system confirms that the wake-up call has been scheduled: *"We will call you tomorrow at [time scheduled]. If you would like to change the time, press 1."*
7. If you are satisfied with the wake-up as it is now scheduled, simply hang up.

7.2.2 8.2.2 MAKING WAKE-UP CALLS

Once the scheduled wake-up time arrives, the VP system calls the guest's room. It rings the telephone 10 times, waiting for an answer. If the guest does not answer, the system tries again two more times.

When the guest answers, the VP system plays the greeting, *"Hello. This is your wake-up call. If you would like us to call you tomorrow at the same time, press 1."* If the guest presses 1, a new wake-up call is automatically scheduled for the same time the next day. The system confirms this call with the prompt, *"We will call you tomorrow at [time scheduled]."*

If the caller does not press 1, the system says, *"There is currently no wake-up call scheduled."*

7.2.3 ADMINISTRATING WAKE-UP CALLS

If you want to keep track of wake-up calls, there are two logs available.

Logging Each Time a Guest Schedules a Wake-Up Call

The monitor file (see section 7.2 for details) can keep track of each time a guest schedules a wake-up call. To enable this feature, add the following lines to the VM.CFG configuration file:

MONITOR = 23

MONITOR = 24

These parameters include the following two entries in the monitor file: changes in the wake-up state and changes to the wake-up time. Think of a change to the wake-up *time* as changing the alarm time on an alarm clock. Think of changing the wake-up *state* as turning the alarm on the clock on or off. The wake-up states are:

- DISABLED—The "alarm" is turned off.
- WAITING FOR TIME—The "alarm" is turned on, but it is not time to make the call yet.
- DONE FOR TODAY—The "alarm" is turned on. The VP system has made the call for the current day and will again make the call tomorrow.

Logging Each Time the VP System Makes a Wake-Up Call To a Guest

The call log file (see section 7.2 for details) tracks each time the VP system makes a wake-up call to a guest. In the log record, the call-type field for a wake-up call is set to **Z**, and the first box in the list of boxes shows the mailbox number called.

7.2.4 RESETTING THE GUEST MAILBOX DURING ROOM CHECK-IN

The VP system can prepare a mailbox when a new guest checks into the room. This preparation consists of:

- Resetting the mailbox password. (The VP system copies the default password from the prototype mailbox. If the PASSWORD field in the prototype mailbox is blank, the VP system sets the password to the mailbox number).
- Deleting any previously-recorded personal greeting.
- Enabling the tutorial (if required).
- Deleting any stored messages.
- Canceling any previously-set wake-up call.
- Resetting the default language.

To automatically reset a mailbox during guest check-in, the VP system must be connected to a Property Management System (PMS) or a PBX that can pass PMS information. Typically, the information is passed over a serial link between the PMS/PBX and the VP system, as described in the following section. To manually reset a mailbox, press [CTRL] + [F3].

7.3 Integrating with the PMS System

There are several types of PMS systems on the market. The VP system currently integrates with several of these and with certain PBXs that provide PMS-type features. Contact your supplier for information on whether the VP system works with a particular PMS system.

One method of connecting the VP system to the PMS and PBX is shown in Figure 8-1 Connecting the VP System to a PMS System - Method 18-1. This method requires the PMS to send check-in information out over two different paths, one to the PBX and one to the VP system. If the PMS requires that the VP system send message waiting indications over the link, the PMS system must be capable of passing this information on to the PBX, to operate the message lamps on the room telephones. If the PMS does not require message waiting information, the VP system can operate the lamps in the normal manner (by going off-hook and dialing the message-waiting code).

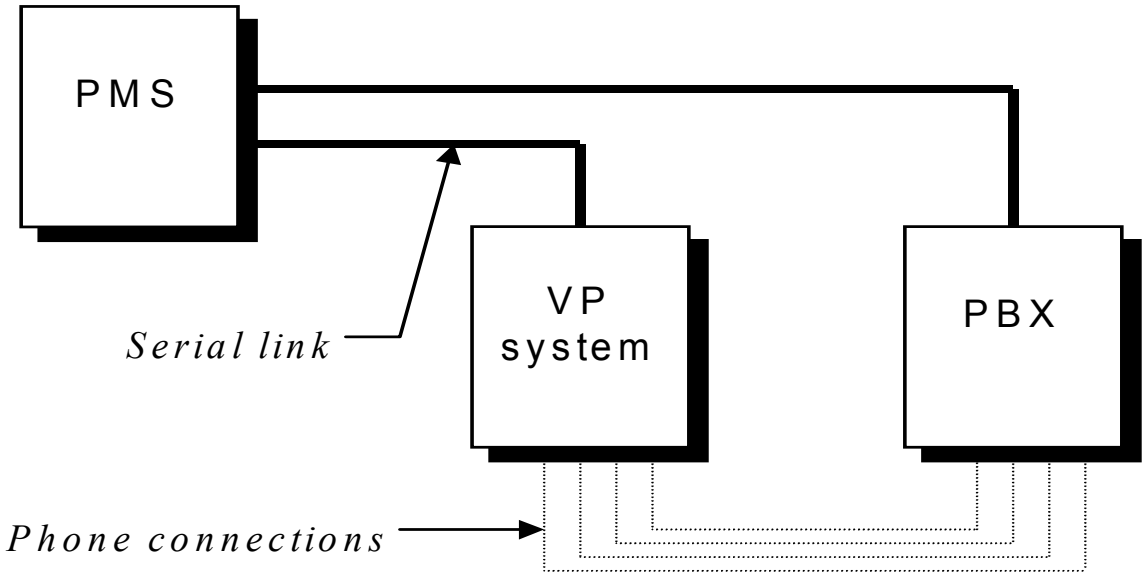


Figure 8-1 Connecting the VP System to a PMS System - Method 1

Another method of connecting the VP system to the PMS and PBX is shown in Figure 8-2 Connecting the VP System to PMS System - Method 28-2. In this configuration, the PBX accepts information from the PMS and passes it on to the VP system. The PMS does not need to know that the VP system even exists.

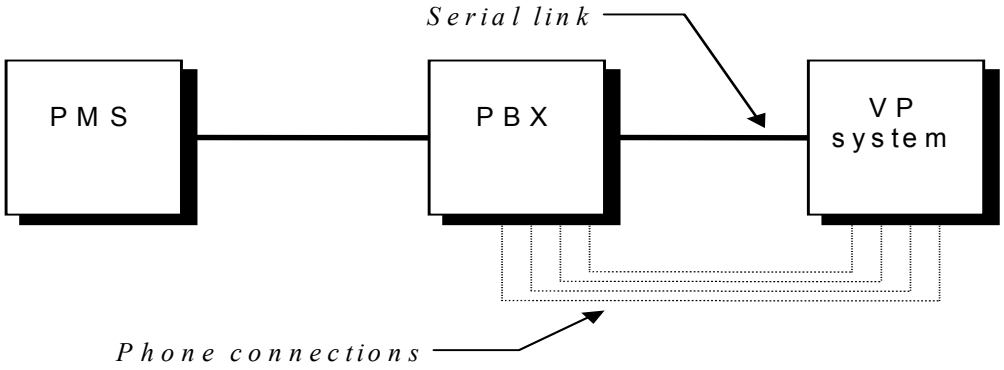


Figure 8-2 Connecting the VP System to PMS System - Method 2

The final configuration (shown in Figure 8-3 Connecting the VP System to PMS System - Method 38-3) connects the VP system directly to the PMS. The PMS does not communicate with the PBX at all. Instead, the PMS sends a check-in message to the VP system each time a new guest checks in. The VP system then prepares the mailbox as described above. When a message arrives for a guest, the VP system turns on the message waiting lamp on the room telephone by going off-hook and dialing the appropriate message-waiting code.

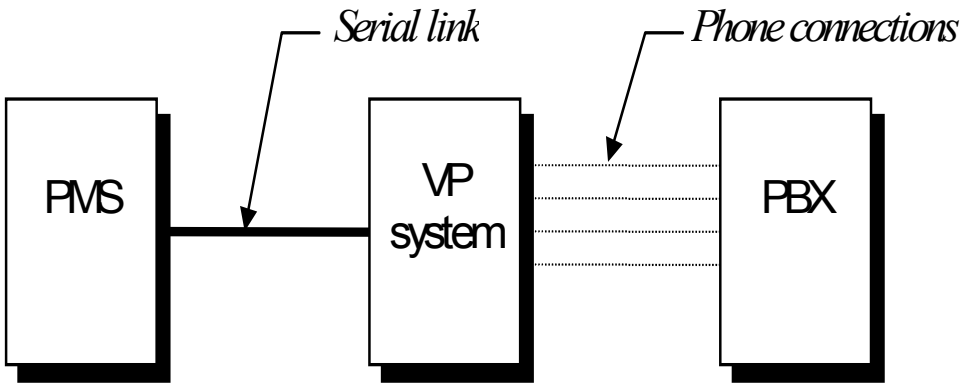


Figure 8-3 Connecting the VP System to PMS System - Method 3

8. TROUBLESHOOTING THE SYSTEM

8.1 Using Test Equipment

Available Tools

To troubleshoot most VP system operational issues, you need a Lineman's Test Set or a standard 2500-type telephone set. You connect one of these tools to the telephone lines serving the VP system ports. If you do not have one of these tools or if the VP system is not located near the telephone system's Main Distribution Frame (MDF), you must access the lines using a modular adapter or by wiring additional modular jacks in parallel.

Troubleshooting efforts can also be eased by using a line monitoring / digital DTMF display device. Although the VP system includes a Trace function that can display incoming DTMF digits to the screen (see below), it does not display outgoing digits sent during call transfers or outgoing calls.

Available Software

Since the VP system operates on a personal computer device, it is helpful to have diagnostic and maintenance software at your disposal.

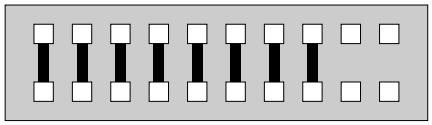
If the VP system is running DOS 6.0 or above, several useful programs are included:

- MSD (Microsoft Diagnostics)-Examines the system and reports the status of hardware components (disk drives, I/O ports, etc.) and the configuration (IRQ settings, memory, etc.)
- DEFRAG-Defragments the hard drive. Fragmenting is caused when files are continuously created and deleted. Because a new file is created each time a message is left in a VP system mailbox, then deleted either automatically or by request of the box owner, the VP system disk drive fragments over time. You can run DEFRAG manually, or set up the VP system to run it automatically (as described below).

If the VP system is running MS-DOS 5, use third-party maintenance software such as Norton Utilities or PC TOOLS to perform diagnostic and defragmenting functions.

If the VP system is running Windows NT version 4.0 or higher, use third-party maintenance software such as Diskeeper to perform diagnostic and defragmenting functions. If the VP system is running Windows 2000, third-party maintenance software is unnecessary since Windows 2000 contains its own disk maintenance utility, Windows 2000 Defrag. For information on using Diskeeper or Windows 2000 Defrag, see section 21.

8.2 Performing Basic Troubleshooting

Problem	Possible Solution
1. PC will not start.	• Verify the AC outlet is working properly. • Verify the AC outlet is not connected to a switch leg. • Verify all the power cords are plugged into the correct places in the computer. • If the only sign of activity is the LED on the front of the computer: (a) Power down the system and remove the cover. (b) Inside the PC, toward the back, remove the screws that hold down each of the cards. (c) Remove each of the cards and re-seat them. This re-establishes the connection between the cards and the motherboard. (d) Power up the PC and wait for the VP system to reload.
2. Hard drive failure.	• Power down the system and remove the cover. • Re-seat all cards as described above. • Press the connectors on the ribbon cables leading from the hard drive to the controller card. This ensures a secure fit. • Check the internal power cable from the PC power supply to the hard drive. • Use the *Hard disk Auto-detect* feature in the BIOS setup.
3. Error message 6309 - Board not configured for this program.	**(DOS-based systems using Rhetorex boards only)** 1. Isolate the problem board using the following procedure: 2. Make a backup of the CONFIG file by typing `COPY CONFIG CONFIG.BAK` 3. Edit the CONFIG file, and remove all lines beginning with `RDSP=`. 4. Insert the line `RDSP=300` 5. Power the system down and remove the cover. 6. Remove all Rhetorex boards. 7. For each board, perform the following steps: (a) 1. Set the jumpers as shown below:  (b) 2. Insert the board in the PC. (c) 3. Power up the PC and wait for the VP system to reload.

Problem	Possible Solution

4. Error message when PC starts: ROM or RAM detected in Page Frame	**(DOS-based systems only)**
	1. This problem sometimes occurs on systems sold as kits (just board and software are sold, the customer or dealer supplies the PC). The error indicates that something else in the computer is using memory in the E0000-EFFFF area, which the VP system normally uses as the EMS page frame. Follow these steps:
	2. Use a text editor to edit the CONFIG.SYS file (for example, type `EDIT CONFIG.SYS`).
	3. Find the line that begins with `DEVICE=C:\DOS\EMM386...`
	4. Remove the line, and add the following line:
	`DEVICE=C:\DOS\EMM386.EXE RAM 1024 X=D000-D7FF`
	5. Save the file, and exit from the editor.
	6. Re-boot the PC, and watch to see if the error message displays.
	7. If the error message displays again:
	8. Use the text editor to edit the CONFIG.SYS file.
	9. Find the line that begins with `DEVICE=C:\DOS\EMM386...`
	10. Remove the line, and add the following line:
	`DEVICE=C:\DOS\EMM386.EXE RAM 1024 X=A000-AFFF`
	11. Save the file, and exit from the text editor.
	12. Go to the \VM directory, by typing `CD \VM`.
	13. Edit the file CONFIG.
	14. Find the line that begins with DUALPORT=.
	15. Remove the line, and insert a line that reads: `DUALPORT=A0`
	16. Save the file, and exit from the text editor.
	17. Re-boot the PC, and watch to see if the error message displays.
	18. If the error displays, contact Technical Support.

5. Error message - Not enough EMS memory	**(DOS-based systems only)** Reset the system by pressing the reset button and watch how the memory is counted on initial startup. The count should reach at least 3700. If the system counts to less than 3700: 1. Power down the PC. 2. Re-seat the SIMMs on the motherboard.

Problem	Possible Solution
6. The VP system starts in *Screen demo* mode	**(DOS-based systems only)** If the system loads, but shows *Screen Demo* in the upper-left corner of the VP system screen, follow these steps: 1. Restart the system and select "2 for DOS" before the VP system loads. 2. Load the voice driver manually as follows: Rhetorex boards: At the \VM prompt, type `RHETDRV` then press <Enter>. Dialogic boards: At the \VM prompt, type `GENLOAD` then press <Enter>. A message appears indicating that software is being downloaded to the board. When downloading finishes, type `D40DRV -i62 -e256 -y` then press <Enter>. 3. Verify the system displays the proper address, correct number of ports, and correct amount of EMS memory. If the driver fails to load manually: 1. Power down the PC. 2. Remove the cover of the PC and re-seat the voice board(s). All the boards should be seated evenly into the motherboard, not tilted to one side in the slot. The screw holding the board in should be tight, but not forced. The board should not be bent, cracked, or forced into the slot. 3. Check the jumpers on the board against the picture in section 20.
7. The VP system starts in *Single-line demo* mode	If the system loads, but shows *Single-line Demo* in the upper-left corner of the VP system screen: 1. Confirm the key is plugged into a parallel printer port. 2. If a printer has been plugged into the key, turn the printer on. 3. Reset the PC. **DOS-based systems using Rhetorex boards only:** 1. If the VP system still starts in *Single-line Demo* mode, exit to DOS, and type `RENEW`. 2. If `RENEW` displays an error message, then either the key is faulty or the parallel port is faulty. Copy the RENEW program onto another PC, and try the key in that PC.

Problem	Possible Solution
8. The VP system does not answer calls	1. Remove the RJ11/RJ14 connector from the back of the VP system PC. 2. Connect that connector to an analog telephone. 3. Dial the extension number for the VP system. If the telephone does not ring, the problem is in the extension wiring or in the PBX programming. If the telephone *does* ring: 1. Run the VP system. 2. Go to the LINE STATUS screen. 3. Set the RINGS TO ANSWER fields to 1 for all ports for Day Service, Night Service and Lunch Service modes. 4. Exit the screen by pressing <F10>. 5. Dial the extension number for the VP system. If the VP system does not answer, there may be an IRQ conflict. The VP system uses IRQ 5. Confirm no other equipment in the PC is using this interrupt (modems, network cards, fax cards, video cards etc.). Run the diagnostic program RDSPTEST.
9. The VP system does not transfer calls	See section 7.3.10.
10. Pagers are not working	See section 7.5.5.

8.3 Troubleshooting Display Problems (DOS-based VP systems)

Checking for Display Problems

Depending on the type of video monitor used by the VP system, you may need to modify the VP system configuration file VM.CFG so all of the screens are properly displayed. The general guidelines are:

- If the system has a true monochrome or a color VGA monitor, no modifications are necessary.
- If the system has a mono or paper white VGA monitor, you may need to make one or more file modification. To determine if modifications are necessary, you must start the VP system and make observations of the screen displays.

The best screen to use to determine if modifications are necessary is the LINE STATUS screen. Perform the following tests:

1. From the LINE STATUS screen, press <F3> until the Message Status display appears on the upper-half of the screen.
2. The mailboxes of the demonstration database should display (boxes 10-12, 100-102, etc.) in solid black characters.

3. Leave a message in one of the mailboxes. When the New message count changes from 0 to 1, the display for that box should begin flashing, and may change to a gray half-tone.
4. Log into the test mailbox and listen to the message, but do not delete it. When the New message count changes from 1 to 0 and the Old message count changes from 0 to 1, the mailbox display should stop blinking and remain the same shade of type.
5. Next, leave 10 new messages in the test mailbox. When the New message count reaches 10, the display should change to reverse video and remain flashing.

Fixing Display Problems

If at any time during the above tests, all or part of the test mailbox display disappears from the screen, or if any of the column headers (Box, New, Old) do not display, you should make one of following modifications, trying Option 1 first:

Option 1 - Mode MONO

1. Exit the VP system program. At the \VM prompt, change to the root directory by typing CD\ then pressing <Enter>.
2. Edit the AUTOEXEC.BAT file by typing EDIT AUTOEXEC.BAT then pressing <Enter>. Enter the command MODE MONO above the command line CD\VM.
3. Press <Alt-F> then <X> to save your changes.
4. Re-boot the computer.
5. Perform the screen display test again and check that all modes of the display are visible. If then problem has not been corrected, go to the next procedure.

Option 2 - Mode W80

1. Exit the VP system program. At the \VM prompt, change to the root directory by typing CD\ the pressing <Enter>.
2. Edit the AUTOEXEC.BAT file by typing EDIT AUTOEXEC.BAT then pressing <Enter>. Enter the command MODE BW80 above the command line CD\VM.
3. Press <Alt-F> then <X> to save your changes.
4. Change to the \VM directory by entering CD\VM then pressing <Enter>.
5. Edit the file VM.CFG by typing EDIT VM.CFG then pressing <Enter>. When the file is loaded, use the ¯ key to place the cursor on a blank line.
6. Enter the following lines of text. Press <Enter> after each line.

color.panel.bg = 0

color.label.bg = 0

color.menu.bg = 0

color.help.bg = 0

color.panel.fg = 7

color.label.fg = 7

color.menu.fg = 7

color.help.fg = 7

7. Press <Alt-F> then <X> to save your changes.
8. Re-boot the computer.

If the screen displays are still not correct, contact Technical Support for assistance.

8.4 Calling Technical Support

Before calling technical support, follow these steps:

1. Test call processing on the VP system lines (originating calls, receiving calls, transferring calls, etc.) by disconnecting the lines from the voice processing boards and connecting a test-set or a 2500-type telephone. Remember, the VP system cannot perform any function that cannot be performed manually from a single-line telephone set.
2. Be ready to take the VP system out of service. Technical Support personnel may ask you to check or modify the contents of one or more files. If the VP system is being used as an auto-attendant, make alternate arrangements to have incoming calls answered during system testing.
3. Have test telephone numbers available so you can re-create the problem(s) you are having. The telephone you use to contact Technical Support should not be the test telephone extension.

8.5 Using the Trace Feature

The VP system has the ability to display incoming DTMF digits received by the voice processing board. For this feature to function on DOS-based VP systems, enter the letter D in a TRACE field on the OTHER CUSTOMIZATIONS screen. On Windows-based VP systems, complete the TRACE SETUP screen.

On DOS-based VP systems, you turn ON the digit trace by pressing <Alt-F5>. On Windows-based VP systems, you turn ON the digit trace by checking the ACTIVATE TRACE box on the TRACE SETUP screen.

Once you activate the digit trace, as incoming digits are received, each digit generates a line of text on the VP system screen.

As each new digit is received, the display will scroll from bottom to top of this area of the screen. If digits are being received on more than one line at a time, the display information from each of the lines will be interleaved. Therefore, it is best to limit incoming calls during the testing period to eliminate confusion

Other Trace Functions

There are several other trace functions you can activate by making entries in TRACE fields. These functions have little or no practical application in every day use, but they may be used by Technical Support personnel to resolve particular issues.

On DOS-based VP systems, you indicate the trace functions you want to activate by entering trace flag letters from the table below in the TRACE fields on the OTHER CUSTOMIZATION screen. Described briefly, these functions trace the following events:

Trace Flag	Description
A	Automatically starts tracing all functions when the VP system starts (see note below).

B	Traces box events.
C	Traces commands sent to the voice processing board.
D	Traces incoming digits (as described above).
E	Traces events received from the voice processing board.
G	Traces messages left and retrieved.
H	Traces hold queue events.
L	Traces COM port events and data (use **LZ** for full COM port data trace).
M	Traces miscellaneous system events.
P	Traces call progress and shows results of call progress analysis (for example, when performing call transfers).
Q	Traces message waiting, pager notification, and message delivery queues.
S	Traces voice mail states (on-hook, off-hook, dialing, recording, etc.).
T	Traces digit translation information.
V	Traces which voice file (prompts, messages, greetings, etc.) is being played.

Note: Use the **A** trace function with caution, since the continuous writing of trace functions to a file can use a large amount of disk space.

On Windows-based VP systems, you can set these trace flags in the TRACE FLAGS field on the TRACE SETUP screen. Or, you can simply check the boxes next to specific trace functions you want to activate on the TRACE SETUP screen.

Recording Trace Functions

When any of the trace functions are ON, they can be displayed on screen and sent to a log file.

- On DOS-based VP systems, to send the trace to a log file, start the trace by pressing <Alt-F2> instead of <Alt-F5>. The file created is named TRACE.LOG, and it is placed in the \VM directory. You can also elect to send the trace directly to the printer port. To do so, start the trace by pressing <Alt-F3> instead of <Alt-F5>. Be advised that the VP system may slow dramatically when printing trace statistics to the printer port. For this reason, it is strongly recommended you send the trace to a log file, then print the log file at a later time, if necessary.
- On Windows-based VP systems, the trace is automatically sent to the file TRACE.LOG in the \VM directory. You can print the TRACE.LOG file at any time, if necessary, using a standard windows editor program with printing capabilities.

Note: Use the A trace function with caution, since the continuous writing of trace functions to a file can use a large amount of disk space.

9. USING SERIAL ADMINISTRATION FEATURES ON DOS-BASED SYSTEMS

DOS-based systems include features you can use to control the VP system PC from a second PC connected to it via a null modem cable. These features make it possible for technicians to use a laptop, for example, to work easily with systems that do not include a monitor and/or keyboard.

To use serial administration features on DOS-based systems, certain VP system program software must be installed on both the VP system (referred to as the *host* PC) and attached PC (referred to as the *remote* PC). The software that must be installed on the VP system PC is called KeyLink Communication software. On turnkey systems, this software is pre-installed with all other VP system software. On kit systems, KeyLink Communication Software must be installed after other VP system software is installed. The procedure for installing KeyLink on the VP system (*host*) PC is provided below.

Information on installing necessary software on the remote PC is also provided in this section. Starting with VP software version 8.3, serial administration software is available for both DOS-based and Microsoft Windows-based remote PCs. It is important to note that the software you install on the remote PC and the procedure you use to access and manipulate the VP system depend on whether the remote PC will be running serial administration features in a DOS environment or in a Microsoft Windows 95, 98, 2000, or NT environment. (In most cases, technicians use a laptop running Microsoft Windows software as the remote PC.) Follow the information that is appropriate for the remote PC environment in which you will be working—DOS-based or Windows-based.

9.1 Installing KeyLink on a Kit System Host PC

Use the procedures below to install KeyLink Communication host PC software on a kit VP system PC. Install KeyLink after you install the VP system program software on the PC.

Note:	KeyLink host software is pre-installed on all VP system PCs shipped as turnkey systems. If you attempt to install KeyLink host software on a PC that has the program pre-installed, the KeyLink program detects those pre-installed KeyLink files and displays a message asking if you want to overwrite them.

To install KeyLink host software on the VP system PC:

Insert the KeyLink installation diskette into the diskette drive on the PC.

At the prompt for the PC's hard drive (typically `C:`), type `A:INSTALL` then press <Enter>.

Follow the prompts to install the host software and enter the requested information. When you are prompted to indicate the directory in which you want to install KeyLink files, accept the default directory C:\VM. Accept program default setup selections whenever possible.

Note:	On the host (VP system) PC, the VP system software must be already installed on the system, and KeyLink must be installed in the same directory that houses the VP system files. If the KeyLink program is not installed in the directory housing the VP system, the installation program displays an error message indicating so.

When all the necessary files have been copied, a message displays indicating that the installation is complete.

9.2 Installing Necessary Software on a Remote PC

Use the procedures below to install the software necessary for serial administration features on a remote PC. Note that the procedure you follow is based on whether the remote PC will be running VP system serial administration features in a DOS environment or in a Microsoft Windows 95, 98, 2000, or NT environment.

To install KeyLink Remote software on a remote PC running a DOS environment:

Insert the KeyLink installation diskette into the diskette drive on the PC.

At the prompt for the laptop's hard drive (typically C: or D:), type `A:INSTALL` then press <Enter>.

Follow the prompts to install the remote software and enter the requested information. When prompted to indicate the directory in which you want to install KeyLink files, accept the default directory \REMOTE. Accept program default setup selections whenever possible.

When all the necessary files have been copied, a message displays indicating that the installation is complete.

To install serial administration software on a remote PC running a Windows 95, 98, 2000, or NT environment:

Insert the first Serial Administration installation diskette (#1) into the diskette drive on the PC.

From the Start button, choose Programs, then Windows Explorer.

On the All Folders side of the Exploring screen, select the diskette drive (typically A:).

Double-click on SETUP.EXE from the right side of the Exploring screen.

Follow the prompts to install the remote software. When prompted to indicate the directory in which you want to install serial administration files, accept the default directory. Accept program default setup selections whenever possible.

When prompted, remove installation diskette #1 and insert diskette #2. Press OK. If the operating system on the laptop is Windows NT or Windows 2000, after you remove diskette #1, you will receive an error message asking you to re-insert the disk. Instead, insert diskette #2, press the Retry button on the error message box, and then select the Continue button.

When prompted, remove installation diskette #2 and insert diskette #3. Press OK. If the operating system on the laptop is Windows NT or Windows 2000, after you remove diskette #2, you will receive an error message asking you to re-insert the disk. Instead, insert diskette #3, press the Retry button on the error message box, and then select the Continue button.

When the Setup Complete screen appears, press Finish. A Serial Administration icon displays on the desktop.

9.3 Connecting the Remote PC to the Host PC

You connect the remote PC to the host (VP system) PC by attaching a null modem cable directly between the host and remote computer serial ports.

Connecting a DOS-based Remote PC to the Host PC

For DOS-based PCs, the communication parameters used by KeyLink are controlled by two files: HOST.INI on the host computer and REMOTE.INI on the remote computer. During the KeyLink installation procedure on the host and remote PCs, you specified parameter settings used in the HOST.INI and REMOTE.INI files, including the COM port that the host PC and remote PC are to use. You can modify parameters in the HOST.INI and REMOTE.INI files at any time. HOST.INI is located in the C:\VM directory of the host computer, and REMOTE.INI is located by default in the C:\REMOTE directory of the remote computer.

To establish a communication link between a DOS environment remote PC and host (VP system) PC:

From the remote PC, change to the \REMOTE directory, then type REMOTE and press <Enter>. A screen displays while the program loads and initializes communications. KeyLink then detects the baud rate set on the host PC and establishes a compatible connection. This detection takes several moments. Once KeyLink establishes a connection between the two systems, the screen refreshes with a display that shows the host PC. The keyboard and monitor of the remote computer now effectively control the host (VP system) PC. The screens you view show the setup and functionality of the VP system host PC, and the keystrokes you make affect the functionality of that PC.

Note:	If a connection cannot be established between the host (VP system) PC and the remote PC, verify that you specified the appropriate COM port settings during KeyLink installation. Also verify that you are using a true **Null Modem** cable. Because visually distinguishing null modem cables from other serial cables is difficult, some users mistakenly use the wrong cable type.
Note:	If you are working with a Debut unit and still cannot establish a connection between the Host (Debut unit and the remote PC, unplug both the Null Modem cable connection at the Debut unit and the Debut unit power source. After a full 60 seconds, replug the Debut unit into the power source. Wait until the upper-most light on the right side of the unit (the light indicated by two curved arrows) starts to blink (this could take several minutes). Once the light is blinking, replug the Null Modem cable from the remote PC. A connection should now be able to be established.

To break the connection between the remote PC and the host (VP system) PC, press <Ctrl-Break> on the remote PC's keyboard. The KeyLink program ends its communication with the host (VP system) PC, and the remote PC's screen refreshes.

Connecting a Windows-based Remote PC to the Host PC

For Windows-based remote PCs, you specify the communication parameters used by the Serial Administrator on the remote PC after installation of the serial administration program using the procedure described below. These parameters can be modified at any time. During KeyLink installation on the host PC, you specified the communication parameters used by the host PC. These parameters are located in the HOST.INI file, and you can modify them at any time. HOST.INI is located in the C:\VM directory of the host computer.

Debut and Small Office Lite systems are pre-configured from the factory with the appropriate serial administration communication parameters:

Debut: COM port 1, baud rate 19200

Small Office Lite: COM port 2, baud rate 19200

For other DOS-based systems, however, you must add the following line to the host computer's VM.CFG file to tell the host computer to communicate with the serial administration program:

use remote dba = *x*,*y*

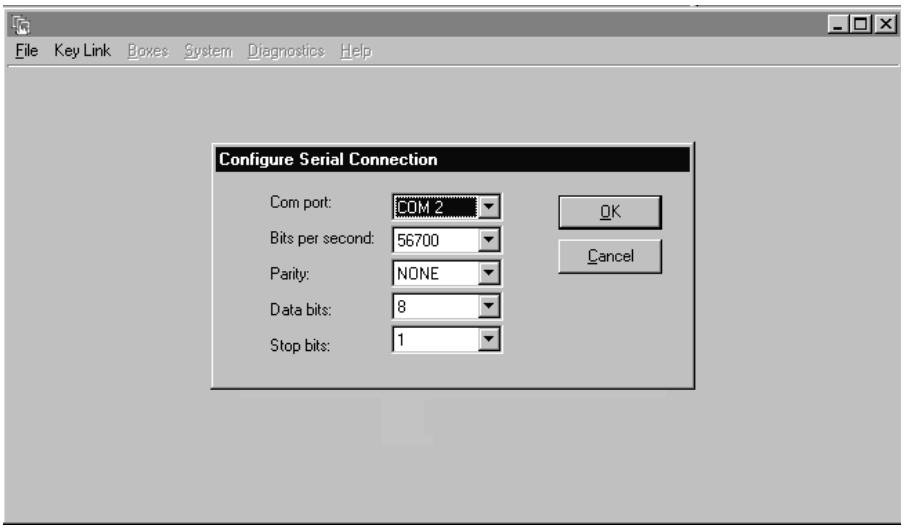
where *x* is the COM port number and *y* is the baud rate.

Note: These parameters must match those in the HOST.INI file.

To establish a communication link between a Windows environment remote PC and host (VP system) PC:

From the remote PC Windows desktop, click on the Serial Administration icon. The VP system serial administration program loads and the SERIAL ADMINISTRATOR screen displays.

From the File pull-down menu, select the CONFIGURE PORTS option. The CONFIGURE SERIAL CONNECTION screen displays.

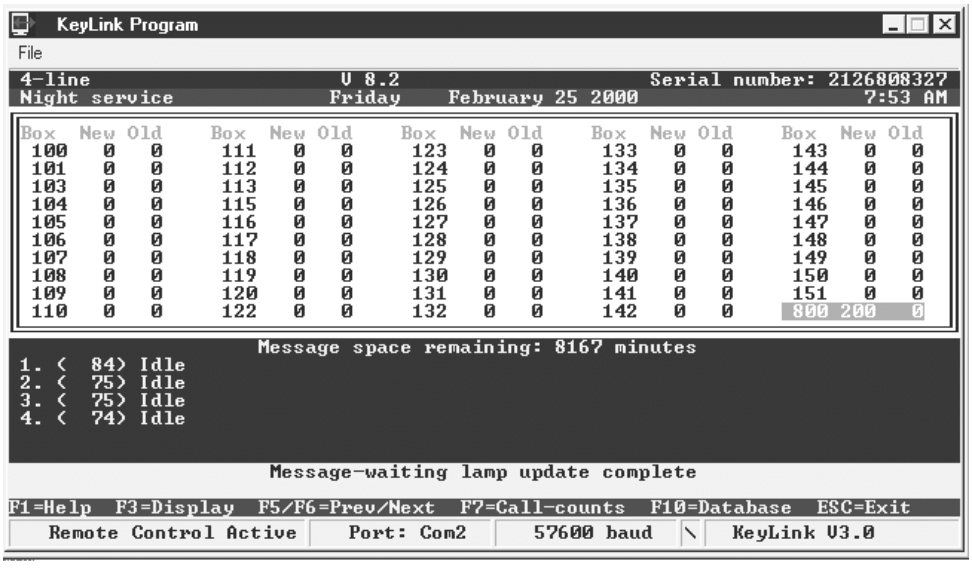


Verify that the COM PORT field indicates the port to which the null modem cable is attached on the remote PC. Also confirm that the other Serial Connection information is specified correctly and corresponds with the information in the USE REMOTE DBA line in the host VM.CFG file. Select the OK button. You return to the SERIAL ADMINISTRATOR screen.

From the SERIAL ADMINISTRATOR screen you can work with the VP system host PC two ways:

- Use KeyLink to view and work with the VP system's DOS screen interface.
- Through a Windows interface to the DOS-based VP system. The windows interface will allow you to control much but not all of the VP system functionality. You will need to use KeyLink to select options or program components that are not available through the Windows interface.

To use KeyLink to view and work with the VP system's DOS screen interface, from the KeyLink pull-down menu, select the REMOTE CONTROL option. Once KeyLink establishes a connection between the two systems, the screen refreshes with a display that shows the host PC. The keyboard and monitor of the remote computer now effectively control the host (VP system) PC. The screens you view show the setup and functionality of the VP system host PC, and the keystrokes you make affect the functionality of that PC.



To use a Windows interface to the DOS-based system, from the File menu, select the CONNECT option. Once a connection is established between the systems, the Boxes, System, Diagnostics, and Help pull-down menus are activated on the SERIAL ADMINISTRATOR screen. Using options available on these Windows-based menus, you can modify the system and box setup structure on the VP system PC. For information on using specific options, select options from the Help pull-down menu.

Note: If a connection cannot be established between the host (VP system) PC and the remote PC, verify that you specified the appropriate COM port settings during KeyLink installation. Also verify that you are using a true **Null Modem** cable. Because visually distinguishing null modem cables from other serial cables is difficult, some users mistakenly use the wrong cable type.

Note: Some Serial Administrator windows will not fit screens using a resolution of less than 800 x 600.

It is important to note that the Windows interface to the VP system is based on a Windows-based version of VP system software. The Windows-based VP system contains an interface very similar to that provided through the Boxes, System, and Diagnostics pull-down menus on the Serial Administrator screen. For this reason, the Windows interface Help menu contains the information provided with Windows-based systems.

To use the online help to find information on a specific VP system field in the Windows interface, use the Search capabilities in the Help file. When viewing field descriptions in the online help, you will notice that each field description identifies both an “WIN:” field name and a “DOS:” field name. The WIN field name is the name of the field as you see it on screens through the Windows interface to the VP system. The DOS field name is the name of the field as you see it on standard DOS-based (KeyLink) interface screens.

To break the connection between the remote PC and the host (VP system) PC, select the Exit option from the File pull-down menu.

9.4 Transferring Files Between the Remote and Host PC

You can copy files from the remote PC to the host (VP system) PC or from the host PC to the remote PC. **Be advised that you can copy only one file at a time. When specifying file names, you must type each name literally; you cannot type wildcard characters in file names.**

To copy files between a DOS environment remote PC and the host PC:

Establish a communication link between the remote PC and the host PC using the procedure provided earlier in this section.

If the VP system is currently running on the host PC, press <Esc> and follow the prompts to exit the program.

Access a DOS prompt.

Access the \VM directory by typing `CD\VM` then pressing <Enter>. (If the VP system program files are installed in a directory other than \VM, access the directory in which the program files are installed.)

To transfer files, type:

`keycopy [from_filename] to remote [to_filename]` <Enter>

or

`keycopy [from_filename] from remote [to_filename]` <Enter>

In place of [FROM_FILENAME], type the name of the file you want to copy. In place of [TO_FILENAME], type the name of the file you want to create or copy over (if it already exists) on the other machine.

For example, to copy the file SAMPLE.TXT from the host PC to the remote PC, type:

`keycopy SAMPLE.TXT to remote SAMPLE.TXT` <Enter>

To copy SAMPLE.TXT from the host PC to the remote PC and name the file SAMPLE2.TXT on the remote PC, type:

`keycopy SAMPLE2.TXT to remote SAMPLE.TXT` <Enter>

To copy SAMPLE.TXT from the remote PC to the host PC and name the file SAMPLE3.TXT on the host PC, type:

`keycopy SAMPLE.TXT from remote SAMPLE3.TXT` <Enter>

10. CALLING INTO A MAILBOX

10.1 Identifying Yourself as the Mailbox Owner

When you call in to the VP system, you are treated as an outside caller and you can leave messages, transfer to an extension, and access features available to outside callers. To listen to the messages in a mailbox, you must identify yourself to the VP system as the mailbox owner by logging into the mailbox.

To log into a mailbox, you must access the voice mail gateway by calling into system box 9992. Normally, you access this system box via a Routing box. By default, on all Routing boxes set up on the system, the # key routes callers who press it to box 9992 (the gateway box). If you set up additional Routing boxes, it is strongly recommended that you retain the 9992 setting beside the # key on Routing box setup screens. This way, a caller can press # from almost anywhere in the system to access the voice mail gateway, which provides access to system mailboxes.

You can also access the voice mail gateway by pressing # when the VP system is playing the greeting for a mailbox (for example, *"Hi, this is Mary. Sorry I can't take your call. Leave me a message after the tone…"*). (You can use a digit other than # to provide this access, see section 12 for information.)

When your call is routed to the voice mail gateway (box 9992), the VP system prompts you to enter your mailbox number. Once you enter a valid mailbox number, the system prompts you for the password to the mailbox. Once you enter the valid password, you gain access to the mailbox, including all the messages it stores.

Hint: If the VP system pauses for a few seconds after you finish entering the password, press the **#** key. This informs the VP system you have finished dialing.

If everyone on the system uses passwords of the same length, indicate the length using the MAX PASSWORD LENGTH parameter in the VM.CFG file. By specifying this parameter, you tell the VP system to continue processing the call as soon as a password of the specified length is dialed. See section 12 for information.

If the password entered is invalid, the VP system asks the caller for the mailbox and password up to two more times. If the correct password is not entered during the second or third attempt, the VP system says, "*Good-bye,"* and disconnect the call.

If you press # once when asked for the password, the VP system assumes you do not want to log in to the mailbox. The system then looks to the field WHEN EXITING OPEN MAILBOX, GO TO BOX in the class of service assigned mailbox and routes the call as indicated in the field.

10.2 Completing the New User Tutorial

10.2.1 TUTORIAL CONTENTS

The first time a new owner opens his/her mailbox, the VP system provides a brief tutorial session that explains a few basic functions, then allows the owner to record his/her name and personal greeting and select a password. The tutorial text and functionality is described below.

Tutorial Part	Tutorial Text	Keypress Results
Tutorial Introduction	"Welcome to your new mailbox. In order to familiarize you with your new mailbox, we would like to briefly describe some of its features. You may exit from this tutorial at any time by pressing the pound key."	If you press #, the tutorial stops and the system voices the mailbox Main menu. Pressing # does *not* permanently remove the tutorial, the next time you log into the mailbox the tutorial starts again. If you press *, the tutorial stops and the system voices the mailbox Main menu. Pressing * does permanently disable the tutorial. It will not be played the next time you log into the mailbox.
Recording Your Name	"There are times when I need to say your name. For example, when the system is about to transfer a call to your extension, the caller will hear: 'Please hold while I transfer your call to Mary Jones.' I need to record your name. Press 1 if you would like to record your name. Otherwise, press 2."	If you press 1, the system prompts you to record your name. After recording the name, the system voices it back to you and allows you to accept the recording or re-record or delete it. If you press 2, the VP system does not prompt you to record a name and proceeds to the next step in the tutorial. If you press # or * the tutorial ceases as described above, and the VP system voices the mailbox Main menu. **Note**:Until the mailbox owner records his/her name, the VP system substitutes the prompt, *"that extension"* as a default.
Recording Your Greeting	"If you are not able to answer your phone, I will play your personal greeting to the caller. Your greeting should sound something like this: 'Hello, this is Mary. I'm sorry I cannot take your call right now. If you would like to leave me a message, press 1, or press 3 if you would like to speak to someone else.' Once you have recorded your greeting, you can change it at any time. Press 1 if you would like to record your personal greeting now. Otherwise, press 2."	If you press 1, the VP system prompts you to record your greeting (if the mailbox is allowed multiple greetings in its assigned class of service, the greeting recorded here is greeting 0). After the system records the greeting, it plays it back to you and allows you to accept it or re-record or delete it. If you press 2, the VP system does not prompt you to record a greeting and proceeds to the next part of the tutorial. If you press # or * the tutorial ceases as described above and the VP system voices the mailbox Main menu. **Note**:Until the mailbox owner records his/her greeting, the VP system substitutes the system default greeting *"...is not available right now."*
Entering a Password	"To protect your privacy, you will be asked to enter your password each time you open your mailbox. This prevents unauthorized callers from gaining access to your messages. You should change your password frequently. If you would like to change it now, press 1. Otherwise, press 2."	**Note:** By default, each new mailbox uses the mailbox number as the initial password. If you press 1, the VP system prompts you to enter a new password up to the maximum number of digits allowed by the system (defined by the VM.CFG parameter MAX PASSWORD LENGTH, see section 12). When you enter a new password, the VP system repeats the digits and asks for confirmation. You can accept the new password or select to enter a different password. If you press 2, the tutorial does not prompt you to enter a new password, and the default password is retained. If you press # or *, the tutorial ceases as described above, and the VP system voices the mailbox Main menu. **Note**:When creating new mailboxes, you can elect to assign no password to mailboxes instead of the default password, which is the mailbox number. Do this by entering **0000** in the mailbox PASSWORD field. The mailbox owner will not be asked for a password until he/she assigns one. Use this option with caution, since anyone can listen to the mailbox owner's messages until he/she assigns a password.

Tutorial Part	Tutorial Text	Keypress Results
Including Your Name in the System Directory	"If you would like to be included in the dial-by-name directory, press 1. Otherwise press 2".	If the LAST NAME field of the mailbox on the MAILBOX screen is blank (or if it consists entirely of digits), the VP system offers you the option to have your name included in the system's directory, which is available to callers attempting to access a specific party. If you press 1, the VP system prompts you to indicate the numbers on the telephone keypad corresponding to the letters that spell out the first 3 letters of your last name. Once you enter the numbers (letters), the VP system repeats them. If you press 2, your name is not included in the dial-by-name system directory. If you press # or *, the tutorial ceases as described above, and the VP system voices the mailbox Main menu. **Note**:If there is no name recorded for this mailbox, it will not be included in the directory.
Concluding the tutorial	"Thank you for taking part in the tutorial. The tutorial will be repeated each time you open your mailbox. If you would like to cancel it, press the star key now."	If you press *, the tutorial is disabled for the mailbox. If you press nothing, the mailbox Main menu plays and the tutorial will repeat the next time you log into the mailbox.

10.2.2 OPTIONS FOR THE TUTORIAL

If you do not want the tutorial to be offered to mailbox owners, the feature can be disabled on a system-wide basis. In the VP system configuration file VM.CFG, enter the following:

DISABLE TUTORIAL

You can customize the text of the tutorial. The text is recorded as system prompts 198-209. See section 15.

Once a mailbox owner disables the tutorial by pressing *, it can be re-activated at any time if the owner logs into his/her mailbox, presses 3 for the Options Menu, then presses 9. The tutorial re-sets to play each time the owner logs into his/her mailbox until it is again disabled.

10.3 Understanding the Main Menu

When you open your mailbox, the VP system voices your name and tells you how many messages you have. For example, *"John Smith, you have five new messages (two of these are marked urgent) and one old message."*

The VP system then plays the Main menu, offering you various options:

> **Note**: Not every system or mailbox has access to every option. See section 15 for the contents of the default pre-recorded prompts, available optional pre-recorded prompts, and possible ways to customize system prompts for a specific installation.

"To listen to your messages, press 1.
To send a message, press 2.
To change your options, press 3.
To listen to questionnaire answers, press 4.(heard only if mailbox owns a Question box)

To change languages, press 5.(heard only if multi-lingual capability is in use)
For supervisor functions, press 6.
To place an outgoing call, press 0.
Or, to exit, press #."

Each of the Main menu choices is explained in this section. For an overview, a map of the voice menus you hear in the VP system is shown in Figure 6-1 Map of the VP system Voice Menus. Optional features (Fax Distribution, Talking Classifieds, Outbound Telemarketing, IVR) are not included.

Note:	If the VP system is equipped with one or more optional modules, this menu may be slightly modified.

Figure 6-1 Map of the VP system Voice Menus

10.4 Listening to Messages

If you press 1 from the Main menu to listen to messages, the VP system prompts you to indicate the type of messages you want to listen to:

"For new voice mail messages, press 1.
For saved voice mail messages, press 2.
For new e-mail messages, press 3.
For saved e-mail messages, press 4.
For all new messages, press 5.
For all saved messages, press 6.
Or, to exit, press #."

Note:	Option 3 and option 6 are heard only by subscribers using the unified messaging feature on Windows-based systems. Information on using unified messaging features is available in a help file accessible to users through a desktop icon installed on client PCs when the unified messaging client software is installed.

If you make no choice, or choose # to exit, the VP system returns you to the Main menu.

When the VP system voices messages, it plays each one in turn beginning with the oldest. If any of the messages are marked urgent, the VP system plays them first. As the VP system plays each message, it provides certain information about the message.

Before the message plays, the system provides the following information:

If the sender indicated the message is urgent, the VP system says, *"This message is marked urgent."* Urgent messages are played before non-urgent messages.

If the sender indicated the message is private, the VP system says, *"This message is marked private."* Private messages cannot be forwarded to another mailbox.

If you indicated the message is to be deleted, the VP system reminds you that it is marked for deletion, *"You have asked for this message to be deleted."* The message is deleted a few minutes after you exit from your mailbox.

If the sender specified that he/she wants to be informed when you hear the message, the VP system says, *"The sender will be notified that you have received this message."*

If the message was sent to a Group box of which you are a member, rather than specifically to your mailbox, the VP system tells you the name of the Group box, for example, *"Message for all managers."*

After the message plays, the system provides the following information:

If there was an account number associated with the call (see section 7.23), the VP system says the account number, for example, *"from 5552211*."

If the message was sent by another mailbox owner from within his/her mailbox, the VP system says the name of the sender, for example, *"From Ted Smith"* (see note below).

If the message was manually forwarded, the VP system says who the original recipient was, for example, *"This message was forwarded from Mary Jones"* (see note below).

If the message was automatically forwarded, the VP system says who the original recipient was, for example, *"This message was automatically forwarded from Mary Jones"* (see note below).

The VP system plays the message time and date (see note below).

Note:	You can configure the VP system to automatically play the message time and date at the beginning or end of each message on the OTHER CUSTOMIZATIONS screen (DOSsystems) / GENERAL INFORMATION screen (WINsystems). Otherwise, to hear the time and date of the message, you can press 5 during the message or during the menu played after the message.

10.4.1 LISTENING TO NEW MESSAGES

If you press 1 to listen to new messages, the VP system plays each of the new messages in turn. Any urgent messages are played first (oldest first), then any non-urgent messages are played (oldest first). The VP system pauses between each message to allow you to decide what to do with the message. When you have heard all new messages, the VP system says, *"You have no more new messages,"* and returns you to the Main menu.

Note:	While listening to a message, you can fast-forward by pressing **9** or rewind by pressing **8**. The number of seconds the VP system forwards or rewinds is defined on GENERAL INFORMATION screen. You can also pause the message by pressing **0**. If you do not press **0** again to resume playing the message within 30 seconds, the VP system automatically resumes message playback.

10.4.2 LISTENING TO SAVED (OLD) MESSAGES

If you press 2 to listen to saved messages, the VP system plays each of the old messages. Any urgent messages are played (oldest first), then any non-urgent messages are played (oldest first). The VP system pauses between messages to allow you to decide what to do with the message. The fast-forward, rewind, and pause functions operate as they do during new message playback.

10.4.3 SELECTING OPTIONS BETWEEN MESSAGES

Each time the VP system plays a message, it ends by offering you the following choices:

"To replay the message, press 1.
To save and play the next message, press 2.
To save the message as new, press 3.
To delete the message, press 4.
To adjust the volume, press 5.
For more options, press 6.
Or to exit, press #"

Each option is defined below. If you do not press a digit, the VP system returns you to the Main menu.

Replay Message—The VP system plays the current message again.

Next Message—The VP system moves on to the next message in the mailbox, saving the current message as an old message. If you have just listened to the last new message, the VP system says, *"You have no more new messages."*

Save As New—The VP system moves on to the next message, but stores the current message as new (as if you have not yet listened to it). This option can also be used to *undelete* a message you have asked to be deleted (see below).

> **Note**: When you save a message as new, mailbox functions such as message waiting lamp control and message notification also treat the message as new (the message waiting lamp remains on).

Delete Message—The VP system marks the message to be deleted and temporarily stores it as a saved message. The message is not actually deleted until you exit from the mailbox. If you play the message again, after requesting that it be deleted, the VP system says, *"You have asked for this message to be deleted,"* then plays the message. If you decide you do not want to delete the message, press 3 to save the message as new. Once you press 3, the message is no longer marked for deletion.

It is good practice to delete messages as soon as possible to prevent the mailbox from becoming full of old, unneeded messages. Saved messages may be scheduled for automatic deletion after a certain number of days (see section 4.10).

More Options—The VP system offers the following options:

"To forward a copy of this message, press 1.
To reply to the message using voice mail, press 2.
To speak with the sender of the message, press 3.
To delete the message, press 4.
To hear the time and date of the message, press 5.
To reply to the message using e-mail, press 6.
Or to exit, press #."

> **Note:** The VP system offers options 2, 3, and 6 only if it has enough information to perform the functions (see the description of these options below). Option 6 is only available if the subscriber is using the unified messaging feature on a Windows-based VP system.

Forward the Message—The VP system prompts you to indicate the mailbox to which you want to forward the message, *"Please enter the box number. If you do not know the box number, press star."* Enter the box number or press * to use the system dial-by-name directory. You have the following sending options:

"To add your comments to the beginning of the message, press 1.
To add your comments to the end of the message, press 2.
To forward the message without comment, press 3.
To exit without forwarding, press #."

If you select option 1 or 2, the VP system prompts you to speak your comments. Once you record your comments, they are added to the message, and the message is forwarded.

Reply to the Message Using Voice Mail—The VP system places you in the mailbox of the sender (assuming the message came from another subscriber on the system). If the message was manually forwarded, your reply is sent to the person who forwarded it. If the message was automatically forwarded (see section 5.5), the reply is sent to the person who sent the original message.

If the message was left by a caller rather than a mailbox owner, the VP system cannot send a voice reply. If in this case and you press 2 at the More Options menu, the VP system says, *"That was not a valid entry."*

Note:	The reply to message using voice mail option is available *only* if a message was sent by another mailbox owner from within his/her open mailbox (the sender has logged in to his/her mailbox and chosen option 2, Send a message, from the Main menu).

Transfer to Message Sender—The operation is slightly different, depending on whether the message is from an outside caller or from a mailbox owner:

If the message is from an outside caller:
This option is available *only* if the sender's telephone number is attached to the message (as the account number). When you select the transfer to sender option, the VP system interprets the account number as a telephone number. It places you on hold and dials the digits stored in the account number, automatically using the out-dialing rules in the DIALRULE.TXT file (see section 7.25). When it has finished dialing the number, it connects you with the called party.

Certain additional conditions apply to this feature:

*If you select this option, the VP system assumes the account number associated with the message is a valid telephone number and tries to dial it. Do not use this option if the account number is not a telephone number.

*Before making the outgoing call, the VP system checks the RESTRICTED DIGITS fields in the mailbox's assigned class of service. If the telephone number is restricted, the VP system does not make the call.

If the message is from a mailbox owner:
The VP system places you on hold and dials the extension number associated with the sender's mailbox. Certain additional conditions apply to this feature:

*The sender's mailbox call transfer feature must be enabled. If disabled, you hear the mailbox owner's personal greeting just as if you had called the VP system and entered the mailbox number.

*Your telephone system must support extension-to-extension transfers.

Delete the Message—See the delete message option description above.

Hear the Time and Date—The VP system plays the time and date the message was received. The VP system consults the PC clock for this function, so it is important to ensure the clock is set to the correct date and time. You can configure the VP system to automatically play the message time and date at the beginning or end of the message on the OTHER CUSTOMIZATIONS screen (DOSsystems) / GENERAL INFORMATION screen (WINsystems).

Reply to the Message Using E-Mail—The VP system records your reply then attaches it as a .WAV file to an e-mail it sends to the original message sender. If the message was manually forwarded, your reply is sent to the person who forwarded it. If the message was automatically forwarded (see section 5.5), the reply is sent to the person who sent the original message.

If the VP system does not have access to the e-mail address of the message sender, it cannot send an e-mail reply. If in this case and you press 6 at the More Options menu, the VP system says, *"That was not a valid entry."*

10.5 Sending a Message

If you press 2 from the Main menu to send a message, the VP system prompts you to indicate the box number. You can send a message to any mailbox or Group box, or to several mailboxes or Group boxes. You can also send a message to one of the personal distribution lists defined for the mailbox.

To send a message to…	Do this
A single mailbox	Enter the mailbox number
Several mailboxes	Enter the first mailbox number
All members of a Group box	Enter the Group box number
All members of a personal distribution list	Enter the distribution list number

If you do not know the box number of the person to whom you want to send the message, press ***** to access the dial-by-name system directory.

Once you have entered the box number, the VP system plays the name of the owner of that box and asks you to confirm you have indicated the correct box. For example:

"John Smith. If this is correct, press 1."

If you press 1, the VP system asks you to record your message after the tone. Once you record the message, the VP system offers the following options:

Digit	Function	Description
1	Send	Send the message. You are offered the following sending options: 1. Send with normal delivery (the default). 2. Send as an urgent message. Urgent messages are played first. 3. Send as a private message. Private messages cannot be forwarded. 5. Send and be notified when recipient has listened to the message. *(This is the same as choosing option 5 below).*
2	Replay	Play the message back, so you can hear how it sounds.
3	Re-record	Delete this message, and record a new one.
4	Cancel	Delete this message, without sending it.
5	Send with confirmation	Send the message, and have the VP system notify you when the recipient first listens to it. Once the message has been heard by the recipient, the VP system sends a message to your mailbox, telling you when the message was received and who received it (in case it was automatically forwarded to a third party). This message from the VP system is treated as a normal message in that it activates all the normal message notification, pager, message-waiting features. *(This is the same as choosing option 1 above, and then pressing 5).*

6	Multiple send	Send this message to several mailboxes or Group boxes. The VP system sends the message to the mailbox (or Group box) you first specified, then asks you for more box numbers. Enter each mailbox (or Group box) number when asked, then press **#** when you are finished.
8	Append	Continue making the recording of this message from the point where you left off. You may continue recording up to the total message length allowed by the receiving mailbox's assigned class of service.
9	Recap	Play back the last 5 seconds of the recorded message.
*	Schedule	Schedule this message for delivery at a future time and date. The VP system prompts you to enter the time and date for delivery of the message, then plays back the information you entered for confirmation. Choosing this option takes the place of pressing 1 (send), which would deliver the message immediately.

10.6 Changing Mailbox Options

If you press 3 from the Main menu to change the mailbox options, the VP system voices the Options menu:

"To record your name, press 1.
To record your greeting, press 2.
To change your password, press 3.
To change your call transfer feature, press 4.
To change your message notification feature, press 5.
To change your pager feature, press 6.
To review messages scheduled for future delivery, press 7.
To change your personal distribution lists, press 8.
To reactivate the tutorial, press 9.
To retrieve a message you have already sent to another mailbox, press *.
Or, to return to the Main menu, press #."

Note:	If this mailbox is the owner of an ACD box, the menu also includes an option to log agents into or out of the ACD group.

If you do not make a selection, the VP system returns you to the Main menu.

10.6.1 RECORDING A NAME

If you press 1 from the Options menu to record a name in the mailbox, the VP system plays the current recording of the name and prompts you to change it:

"To replay your name, press 1.
To re-record your name, press 2.
To delete your name, press 3.
Or, to exit, press #."

If you press 1, the VP system plays the current recording of the name, then plays the menu again.

If you press 2, the VP system asks you to record your name after the tone. Speak the name, then press # to end the recording. If you do not press #, the VP system will record a few seconds of silence before ending the recording. This will slow the progression of calls to the mailbox. Once the name has been recorded, the VP system plays the above menu again.

If you press 3, the VP system deletes the current recording of the name. If you press #, you return to the Options menu.

10.6.2 RECORDING A GREETING

If you press 2 from the Options menu to record a greeting, the VP system examines the class of service assigned to the mailbox (see section 4.10) and checks to see if you are the *owner* of any other box in the system (Routing box, Questions box, etc.). The next prompt you hear depends on:

Whether the mailbox is allowed to record multiple greetings, a single greeting, or no personal greeting, as defined in the assigned class of service. If the mailbox is not permitted to record a personal greeting, the VP system says, *"That was not a valid entry,"* and plays the Options menu again. When a call is routed to this mailbox, the caller hears the default system greeting, *"[Name] is not available right now..."*

Whether the mailbox is the owner of one or more other system boxes. If the mailbox is an owner of another system box, the VP system prompts you to select which box you want to change the greeting in, *"Please enter the box number."*

If you enter a number for a box that you do *not* own, the VP system says, *"I'm sorry, you do not own that box."* then re-plays the Options menu. If you enter a number of a box that you *do* own, the VP system plays the following menu:

"To replay the greeting, press 1.
To re-record the greeting, press 2.
To delete the greeting, press 3
To select a new active greeting, press 5.
Or, to exit, press #."

Options 1, 2, and 3 function the same way as when you use them to record a name for the mailbox (see above). The only difference involves boxes that are allowed multiple greetings. If the box is allowed multiple greetings and you select option 1, 2, or 3, the VP system prompts you to indicate the number of the greeting (0 – 9) you want to modify.

Note:	If a mailbox is not allowed any greetings, then any boxes "owned" by that mailbox are also not allowed any greetings.

Enter the greeting number (or press * if you want to work with whichever greeting is currently active). If the number you enter is higher than the maximum number of greetings allowed by the assigned class of service, the VP system says, *"That was not a valid entry,"* and replays the Greeting menu. If the greeting number is valid, the VP system allows you to play, re-record, or delete it using the same functionality it uses when you play, re-record, or delete the mailbox name (see above).

Note:	If the mailbox is allowed multiple greetings, recording one of the greetings does *not* affect which greeting is active. That is, if greeting 0 is currently the active greeting, recording greeting 1 does not automatically make it the active greeting. You must use option 5 to activate a different greeting.

Option 5 allows you to select another greeting as the currently active greeting. The *active* greeting is the greeting played to callers when they are routed to the mailbox. Once you select a new active greeting, the VP system plays the greeting back to you for confirmation.

Note:	If the class of service assigned to the mailbox allows multiple greetings (ranging from 0 to 9), record greeting 0 first since this is the active greeting by default. You can then record additional greetings 1 through 9, as allowed by the class of service.

10.6.3 CHANGING A PASSWORD

If you press 3 from the Options menu to change your password, the VP system prompts you to enter a new password. The password can contain the digits 0 – 9 and the character *, and it can be up to 10 digits/characters long. When the VP system is shipped, the maximum password length is set to 4 by default, but this can modified using the parameter MAX PASSWORD LENGTH in VM.CFG configuration file (see section 12).

Once you enter a new password, the VP system prompts you to re-enter it for confirmation. This ensures you do not accidentally mis-enter the password you intended to use. Once you enter the same password twice, the VP system plays the prompt, *"Your password has been changed and will be in effect the next time you call."*

If you do not re-enter the password when prompted or you do not enter two matching passwords as prompted, the VP system does not accept the new password and plays the prompt, *"Your password has not been changed."*

Note:	If you do not want to password-protect a mailbox, enter **0000** (four zeros) as the password. If the mailbox contains the password 0000, the VP system does not prompt the mailbox owner to enter a password when logging into the mailbox. Be advised that when the mailbox does not prompt for a password, anyone can open it. You are strongly urged to *always* password-protect a mailbox and change the password regularly for maximum security.
Note:	Mailbox owners are barred from remotely changing their passwords if the password field entry is enclosed in brackets [ ] on the MAILBOX screen.

10.6.4 CHANGING THE CALL TRANSFER SERVICE

If you press 4 from the Options menu to change the call transfer service, the VP system announces the current state of the service. If the service is currently enabled (on), you hear the prompt, *"Your calls are currently being transferred to [number]. Press 1 if you would like to change the number."* If the call transfer service is currently disabled (off), you hear the prompt, "*Your calls are currently being transferred to voice mail. Press 1 if you would like to change the number."*

Press ***** to toggle the call transfer service on (callers are transferred to the telephone) and off (callers hear the mailbox greeting immediately). After you press *, the VP system voices a confirmation prompt indicating the current state of service.

Press **1** if you want to enter a new call transfer number. The VP system asks you for the new number, *"Please enter the new number."* Once you enter the new number, the VP system plays the confirmation prompt, "*Your calls are currently being transferred to [number]."* Press **#** to accept the number and return to the Options menu, or press **1** to enter a different number.

Note:	Mailbox owners are barred from modifying the call transfer number if the number is enclosed in brackets [ ] on the MAILBOX screen.

When you specify a call transfer number, you can enter the following special characters:

is interpreted as a hook-flash.

*** is interpreted as a pause. The default length of the pause is equal to one comma (,). To remotely enter a longer pause, enter ****** (6 stars), or change the REMOTE PAUSE parameter in the VM.CFG configuration file (see section 12).

You may enter the number of a telephone outside of the telephone system, provided the telephone system supports this feature and the VP system has been programmed to perform external transfers (see section 7.3). Long distance (toll) numbers can be restricted in the mailbox owner's assigned class of service.

Press **2** to configure the Follow-Me feature for the mailbox. This option is only available if the mailbox is permitted to use Follow-Me call transfer features in its associated class of service. Once you press 2 to configure the feature, the current status of the Follow-Me feature is announced as one of the following:

"Your Follow-Me feature is currently disabled."

"Your Follow-Me feature is currently set to follow you automatically."

"Your Follow-Me feature is currently set to follow you only when the caller requests to."

The Follow-Me Configuration menu then voices.
"Press 1 to review the numbers in the current schedule.
Press 2 to disable the Follow-Me feature.
Press 3 to set the Follow-Me feature to follow you automatically.
Press 4 to set the Follow-Me feature to follow you only when the caller asks to.
Or press # if you are satisfied."

Using the Follow-Me Configuration menu over the telephone, the mailbox owner can hear a listing of currently configured Follow-Me number entries, add Follow-Me phone numbers, or delete number entries from the Follow-Me list. Additional, more detailed modifications to the Follow-Me configuration, however, must be completed on-screen.

10.6.5 CHANGING THE MESSAGE NOTIFICATION SERVICE

If you press 5 from the options menu to change the message notification feature, the VP system informs you of the current state of the feature, *"Your message notification feature is [telephone number],"* or, *"Your message notification feature is off. Press 1 to change the number or press pound if you're finished."*

To change the message notification number, use the technique described above for changing the call transfer service. To toggle the message notification feature on or off, press *, as described above.

Note:	This option allows you to change the first telephone number the VP system calls to inform you that you have new messages. You can also toggle message notification on and off using this option. (See section 7.6 for details on the message notification feature.) Be advised that you cannot change the second or subsequent message notification numbers remotely. You must access the mailbox's MAILBOX screen.

10.6.6 CHANGING THE PAGER SERVICE

If you press 6 from the Options menu to change the pager service, the VP system informs you of the current state of the feature, *"Your pager service is [telephone number],"* or, *"Your pager service is off. Press 1 to change the number or press pound if you're finished."*

To change the pager service, use the technique described above for changing the call transfer service. To toggle the pager service feature on or off, press *, also as described above.

10.6.7 REVIEWING MESSAGES SCHEDULED FOR FUTURE DELIVERY

If you press 7 from the Options menu to review future delivery messages, the VP system plays information about the next message you have scheduled for future delivery, "*Message for [receiving mailbox owner's name] [date] at [time],"* or, *"You have no messages scheduled for future delivery."*

If you currently have messages scheduled for future delivery, the VP system plays the following menu of options:

"To listen to the message, press 1.
To hear the next message, press 2.
To cancel the message, press 4.
Or, to exit, press #."

You can only listen to or cancel future delivery messages from this menu. If the contents of the message are not satisfactory you must delete the message, then return to the Main menu and press 2 to re-record and reschedule the message.

If you do not have any messages scheduled for future delivery, or after you have listened to all of the future delivery messages, the VP system says, *"You have no [more] messages scheduled for future delivery,"*

10.6.8 CHANGING THE PERSONAL DISTRIBUTION LISTS

If you press 8 from the Options menu to change a personal distribution list, the VP system prompts you through the process of making personal distribution list modifications. This option allows you to add mailboxes to or remove mailboxes from a personal distribution list.

Note:	Personal distribution lists are not active until they have been enabled on the page 4 screen of the Mailbox (DOS-based systems) or the Distribution lists tab of the Mailbox (Windows-based systems). See Mailbox Screen Field Descriptions in section 5 for more information.
Note:	Each mailbox can create up to 4 personal distribution lists, each containing up to 20 mailbox numbers. Only mailboxes can be members of a personal distribution list. (You cannot include a Group box on the list.)

10.6.9 RETRIEVING A MESSAGE ALREADY SENT TO ANOTHER MAILBOX

If you press * from the Options menu to retrieve a previously sent message, the VP system prompts you to enter the recipient's mailbox number. If the mailbox contains messages you have sent, and the mailbox owner has not yet listened to those messages, the VP system plays each one. After each message plays, the VP system allows you to skip it, re-play it, re-record it, or delete it.

10.6.10 LOGGING INTO AND OUT OF ACD BOXES

If you press 0 from the Options menu for ACD administration, the VP system asks you to indicate the number of the ACD box you want to modify. Enter the ACD box number. The VP system voices the following options:

"To add an extension to this ACD group, press 1.
To remove an extension, press 2.
To exit, press #."

If you select option 1 or 2, the VP system asks you for the extension number.

Note:	Enter an *extension* number, *not* a mailbox number. The numbers listed in the ACD box are *extension* numbers.

Once the VP system adds the extension you specified to or deletes it from the ACD group, the system voices the confirmation prompt, *"Extension [number] has been [added to / deleted from] ACD group [name]."*

For more information on ACD groups, see section 7.4.

10.7 Listening to Question Box Answers

If the mailbox owns one or more Question boxes, you can press 4 to listen to answers recorded as messages in the mailbox. If you press 4 from the Main menu to listen to answers, the VP system asks you whether you want to listen to new or old questionnaire answers:

"For new questionnaire answers, press 1.
For old questionnaire answers, press 2.
Or, to exit, press #."

When you select option 1 or 2, the VP system searches through all the Question boxes owned by the mailbox and plays any old or new messages it finds.

Note:	Questionnaire answers are arranged in sets, with each set consisting of the answers supplied to the questions (1 through *n*) recorded in the Question box.

While the VP system plays back a set of answers, you can press **8** to replay the last answer. You can also press **9** to skip forward to the next answer and press **0** to pause the playback. To resume playback you have paused, press **0** again or wait 30 seconds and the VP system will automatically resume playback.

After an entire set of questionnaire answers has played, the VP system voices the following options:

"To replay the message, press 1.
To play the next message, press 2.
To save the message as new, press 3.
To delete the message, press 4.
To adjust the volume, press 5.
To exit, press #."

The same basic message play features apply when you are listening to Question box answers as when you listen to regular messages. Press 1 to replay the entire set of answers, press 2 to save the set as an old set and proceed to the next set of answers, press 3 to save the set as a new set of answers, and press 4 to delete the answers. When you have listened to all sets of answers, the VP system plays the system prompt, *"You have no more [new / old] messages."*

Note:	You cannot forward a Question box answer to another mailbox.

10.8 Changing Languages in a Mailbox

Note:	This option is not in effect unless you are using multiple languages (see section 7.12).

If you press 5 at the Main menu, the VP system switches to the next language. For example, assume that the first language on the system is English, the second language is French, and the third language is Spanish. If you are listening to the Main menu in English, and you press 5, the VP system restarts the menu again in French. French is now the current language for the call. All menus and prompts are played in French. If you record a greeting, it should be in French.

If you go back to the Main menu, and press 5 again, the VP system starts playing the Main menu in Spanish. Spanish is now the current language for the call. All menus and prompts are played in Spanish. If you record a greeting, it should be in Spanish.

10.9 Using Supervisor Mailbox Options

If you have Supervisor privileges (defined by the class of service assigned to the mailbox), you can press 6 from the Main menu to access the Supervisor voice menu.

The Supervisor voice menu has the following options:

"For mailbox administration, press 1.
For Routing box administration, press 2.
For Question box administration, press 3.
For port administration, press 4.
To change the system broadcast message, press 5.
To change the voice-mail day / night service, press 6.
To change the system time, press 7.
To change the system date, press 8.
To change the system parameters, press 9.
To run first time setup, press 0.
Or, to exit, press #."

See section 7.11 for more information on each of these options.

10.10 Placing an Outgoing Call from a Mailbox

If you *are* authorized to use the outgoing call feature, the VP system prompts you for the number to which you want to be connected, and it places a conference (three-way) call to that number. For more information on three-way calling, see section 7.18.If you press 0 from the Main menu to place an outgoing call, the VP system checks the class of service assigned to the mailbox to verify this feature is available to you. If it is not, the VP system says, *"I'm sorry, that was not a valid entry."*

10.11 Exiting a Mailbox

If you press # from the Main menu to exit, the VP system closes the mailbox and routes your call to a new box. To determine where to send your call, the VP system looks at the CLASS OF SERVICE screen in the field WHEN EXITING OPEN MAILBOX, GO TO BOX.

10.12 Mailbox Security

Beginning with software version 11.0, Service Pack 1, an added measure of mailbox security has been added. If someone attempts to gain access to a mailbox without a valid password, the mailbox will lock out subsequent acess after three (3) unsuccessful attempts. Callers attempting to leave a voicemail message to an extension that has been locked will receive the message, “I’m sorry, that mailbox is temporarily out of service”. By default, the mailbox will reset autoatically after 30 minutes. Changes in the VM.CFG file will allow you to customize this setting. Refer to section 12, Configuration File Options, for additional information.

11. USING THE TELEPARAMETER FEATURE

This section provides information on using the teleparameter feature to set up a new system at a customer site or to make modifications to the system. Using the teleparameter feature, you can change the parameter values that affect system-wide setup information, box setups, and VM.CFG file data by calling into the system. (On DOS-based systems, you can also run the System Setup utility.) To use the feature, you simply log into the supervisor mailbox over the telephone, select the option to modify system parameters, then as prompted, specify setup information or enter codes that identify each parameter you want to change and the new value to which you want to set the parameter. The parameter value table provided in this section indicates the parameters and their associated codes.

Technicians who have experience setting up systems may prefer to use the teleparameter feature to quickly make modifications and get the system up and running at the customer's site. Be advised, however, that since this technique involves inputting codes that represent system parameters and corresponding values to which parameters are to be set, it is a bit more difficult to use effectively if you are unfamiliar with setting up systems. For this reason, we recommend that technicians unfamiliar with systems use the instructions provided in the previous sections to complete all necessary system setup steps.

11.1 Running PBX Setup (DOS Systems)

To run the PBX Setup utility by calling into the system over the telephone:

From a telephone, call into voice mail and log into a supervisor mailbox. The system voices the Main menu:

"To listen to your messages press 1. To send a message press 2. To change your options press 3."

To access the Supervisor menu, press 6 (this option is not voiced). The system voices the Supervisor menu options:

Supervisor Menu	
For Mailbox Administration	Press 1
For Routing box Administration	Press 2
For Question box Administration	Press 3
For Port Administration	Press 4
To change the System Broadcast Message	Press 5
To change the voice mail Day / Night Service	Press 6
To change the System Time	Press 7
To change the System Date	Press 8
To modify System Parameters	Press 9
To perform First-Time Setup	Press 0
To Exit	Press #

From the Supervisors menu, press 0 to perform first time setup. The system prompts you to enter the Technician password. Enter the password (by default, this is **1234**).

Follow the prompts and enter the requested information. When you are prompted to indicate the type of phone system with which you are working, enter the number from the following list that corresponds to the phone system:

Number	Phone System
56	Atlas 50
29	Atlas 200
08	Comdial DigiTech / Impact / DSU
11	Comdial DXP / DXP Plus
74	Comdial FX / FXS / FXT
22	Comdial Executech 2000
44	Comdial Unisyn
79	Cortelco Aries
45	Encore CX - ECX 1832 / 3672 / 36112
77	Ericsson MD-110
75	Fujitsu 9600 with Serial Integration
96	Fujitsu Allegra 26
78	Fujitsu Series 3 / Starlog
41	Fujitsu Starlog
80	Harris 20/20
07	Intellicom 500
06	Intellicom 2000
55	Isoetec IDS 108 / 228
49	Isoetec System 96
30	ITT / Cortelco System 3100
28	Iwatsu ADIX
20	Iwatsu ZT-D
94	Lucent Definity G3 – Calista Box – Vectoring – Bridged Mode
92	Lucent Definity G3 – VoiceBridge
93	Lucent Definity G3 – VoiceBridge – Vectoring – Bridged Mode
13	Lucent Merlin II
34	Lucent Merlin Legend
97	Lucent Partner ACS
50	Lucent Partner II
38	Lucent Partner Plus
37	Lucent System 25
63	Lucent System 75
91	Lucent System 85 and Definity Generic 2 – VoiceBridge
31	Mitel COV with D/42D-SX Voice Boards
39	Mitel SX100 Digital PABX with ONS Integration
84	Mitel SX200 Light with COV Integration
89	Mitel SX200 Light with DNIC Integration
85	Mitel SX200 Light with ONS Integration
86	Mitel SX2000 and SX2000 Light with COV Integration

Number	Phone System (Continued)
88	Mitel SX2000 and SX2000 Light with DNIC Integration
81	Mitel SX50 with COV Integration
90	Mitel SX50 with DNIC Integration
17	NEC Electra Professional Level I
54	NEC Electra Professional Level II
21	NEC Mark II
51	NEC NEAX-1400 IMS
73	NEC NEAX-2000
35	NEC NEAX-2400 Serial Integration
33	Nitsuko DSO-1 / ONYX / 124i / 384i
72	Northern Telecom Norstar D42NS
27	Northern Telecom Norstar - With VMI Adapters
53	Northern Telecom SL-1 and Meridian-1/SL-1, (with D42-SL)
18	Panasonic 1232 - Analog
24	Panasonic DBS
36	Panasonic KXT-336
23	Panasonic KX-TD 1232 Digital
66	Panther II 820 / 1032 / 2064 Release IV
52	Philips SOPHO-S
32	Premier ESP / Intertel GMX
47	Redwood 3.2
70	Rolm 9200 BCS / Siemens HCM 200
10	Samsung Prostar 56EX / 120MX / 1224
42	Samsung Prostar DCS – Digital
09	Siemens Hicom 150
12	Siemens Saturn I, II, III
15	SMDI Installation Guide / Centrex
40	Southwestern Bell Landmark DKS 308 / 616
19	Sprint Protégé / Macrotel MT360 / 824 KSU
59	Tadiran Coral I, II, & III
68	Telrad 2464
64	Telrad Digital Key BX, 200 Digital
46	Toshiba DK-16 / 24 / 56 / 96
16	Toshiba DK-280
26	Toshiba Perception E
95	Toshiba Perception EX
57	Toshiba Perception I & II
87	Vodavi DHS
43	Vodavi Infinite DVX1, DVX2, & DVX3
48	Vodavi Starplus 2448EX / 4896EX
58	Vodavi Starplus 96EX
14	Vodavi Starplus Digital

Number	Phone System (Continued)
62	Win 100D

Once you enter all necessary information, press 1 as prompted to reboot the PC. You must allow the system to reboot so it can reset several parameters based on the information you entered. When the system reboots, your call into it is disconnected.

11.2 Adjusting System Info, Box Setups, and VM.CFG Data

Use the following procedure to modify parameters that affect system-wide setup information, box setups, and entries in the VM.CFG file:

From a telephone, call into voice mail and log into a supervisor mailbox. The system voices the Main menu:

"To listen to your messages press 1. To send a message press 2. To change your options press 3."

To access the Supervisor menu, press 6 (this option is not voiced). The system voices the Supervisor menu options:

Supervisor Menu	
For Mailbox Administration	Press 1
For Routing box Administration	Press 2
For Question box Administration	Press 3
For Port Administration	Press 4
To change the System Broadcast Message	Press 5
To change the voice mail Day / Night Service	Press 6
To change the System Time	Press 7
To change the System Date	Press 8
To modify System Parameters	Press 9
To perform First-Time Setup	Press 0
To Exit	Press #

From the Supervisors menu, press 9 to modify system parameters. The system prompts you to enter the Technician Password. Enter the password (by default, this is **1234**).

At the prompt, enter the number of the parameter you want to change, then, as prompted, the value to which you want to change the parameter. Parameter information is provided in a comprehensive table in this section.

When you complete all modifications, press # to return to the Supervisor's menu.

Teleparameter Value Tables

The following table identifies all parameters you can adjust using the teleparameter feature and the entries you can make to indicate specific values for each parameter. Refer to information after this table for additional entries you can make in some fields.

Be advised certain tasks in this table involve setting up parameters whose associated screens have names that differ between the Windows-based and DOS-based systems. In this section, tasks that relate to setting up screens in DOS-based systems are prefaced by **(DOS**). Those that relate to setting up screens in Windows-based systems are prefaced by **(WIN)**.

Task	Param. Number	Description	Acceptable Values	Notes:
Account Number Box Setup	2700	Minimum number of digits required for valid entry determination	1 - 9	A prompt for the Item number refers to the box number. Enter the box number.
Account Number Box Setup	2701	Maximum number of digits required for valid entry determination	1 - 30	A prompt for the Item number refers to the box number. Enter the box number.
Account Number Box Setup	2702	Number of seconds to wait before determining all digits are entered	0 - 9	A prompt for the Item number refers to the box number. Enter the box number.
Account Number Box Setup	2703	Action to take after maximum retry attempts if invalid account number is entered	0 = Return 1 = Say 'Goodbye' 2 = Go to another box 3 = Hang up	A prompt for the Item number refers to the box number. Enter the box number.
Account Number Box Setup	2704	Box associated with parameter 2703	(Valid mailbox number)	A prompt for the Item number refers to the box number. Enter the box number.
Account Number Box Setup	2705	Retry attempts to allow if invalid account number entered	0 - 9	A prompt for the Item number refers to the box number. Enter the box number.
Account Number Box Setup	2706	Number of mailbox that owns the Account Number box	(Valid mailbox number)	A prompt for the Item number refers to the box number. Enter the box number.
Account Number Box Setup	2707	Action to take if account number was previously collected during call	0 = Use the existing account number 1 = Ask for a new account number	A prompt for the Item number refers to the box number. Enter the box number.
Account Number Box Setup	2708	Repeat number entered for confirmation?	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.
Account Number Box Setup	2001	Action to take if valid account number is entered	0 = Return 1 = Say 'Goodbye' 2 = Go to another box 3 = Hang up	A prompt for the Item number refers to the box number. Enter the box number.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Account Number Box Setup	2002	Box associated with parameter number 2001	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
ACD Box / Customer Service Box Setup(DOS-based systems only)	2501 to 2512 (DOS only)	ACD rotation box members	(Valid mailbox numbers)	A prompt for the Item number refers to the box number. Enter the box number.
ACD Box / Customer Service Box Setup	2520	Number of mailbox that owns the ACD Box / Customer Service Box	(Valid mailbox number)	A prompt for the Item number refers to the box number. Enter the box number.
ACD Box / Customer Service Box Setup	2521	Action to take when trying extension	1 = Always transfer 2 = Transfer if free 3 = Transfer if free 4 = Transfer if answered	A prompt for the Item number refers to the box number. Enter the box number.
ACD Box / Customer Service Box Setup	2522	Criteria by which hunt is started	0 = Start hunting from first agent in group 1 = Start hunting from previous agent 2 = Longest idle (Windows-based systems only)	A prompt for the Item number refers to the box number. Enter the box number.
ACD Box / Customer Service Box Setup	2523	Number of announcements after which caller is offered other options	1 - 99	A prompt for the Item number refers to the box number. Enter the box number.
ACD Box / Customer Service Box Setup	2524	Rings permitted before no answer determination	1 - 99	A prompt for the Item number refers to the box number. Enter the box number.
ACD Box / Customer Service Box Setup	2525	Box default operator during day service	(Valid mailbox number)	A prompt for the Item number refers to the box number. Enter the box number.
ACD Box / Customer Service Box Setup	2526	Box default operator during night service	(Valid mailbox number)	A prompt for the Item number refers to the box number. Enter the box number.
ACD Box / Customer Service Box Setup	2527	Action to take if all extensions are busy	0 = Go to another box 1 = Queue the call	A prompt for the Item number refers to the box number. Enter the box number.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
ACD Box / Customer Service Box Setup	2528	Box associated with parameter 2527	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
ACD Box / Customer Service Box Setup	2529	Action to take if caller elects not to remain in queue	0 = Return 1 = Say 'Goodbye' 2 = Go to another box 3 = Hang up	A prompt for the Item number refers to the box number. Enter the box number.
ACD Box / Customer Service Box Setup	2530	Box associated with parameter 2529	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
ACD Box / Customer Service Box Setup	2531	If call is queued, announce position in line?	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.
ACD Box / Customer Service Box Setup(Windows-based systems only)	2532 to 2581	Customer Service rotation box members	(Valid mailbox numbers)	A prompt for the Item number refers to the box number. Enter the box number.
ACD Box / Customer Service Box Setup(Windows-based systems only)	2592	Do not offer other options until after announcements?	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.
ACD Box / Customer Service Box Setup(Windows-based systems only)	2593	After options have been offered this many times, require caller to press a key to continue holding.	0-99	A prompt for the Item number refers to the box number. Enter the box number.
Business Hours Setup	5042	Hour day service begins	00-24	A prompt for the Item number refers to the day of the week. Enter 0 (Sunday) through 6 (Saturday).
Business Hours Setup	5043	(With parameter 5042) Minute day service begins	00 - 59	A prompt for the Item number refers to the day of the week. Enter 0 (Sunday) through 6 (Saturday).
Business Hours Setup	5044	Hour day service ends	00 - 24	A prompt for the Item number refers to the day of the week. Enter 0 (Sunday) through 6 (Saturday).

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Business Hours Setup	5045	(With parameter 5044) Minute day service ends	00 - 59	A prompt for the Item number refers to the day of the week. Enter 0 (Sunday) through 6 (Saturday).
Business Hours Setup	5046	Hour lunch service begins	00 - 24	A prompt for the Item number refers to the day of the week. Enter 0 (Sunday) through 6 (Saturday).
Business Hours Setup	5047	(With parameter 5046) Minute lunch service begins	00 - 59	A prompt for the Item number refers to the day of the week. Enter 0 (Sunday) through 6 (Saturday).
Business Hours Setup	5048	Hour lunch service ends	00 - 24	A prompt for the Item number refers to the day of the week. Enter 0 (Sunday) through 6 (Saturday).
Business Hours Setup	5049	(With parameter 5048) Minute lunch service ends	00 - 59	A prompt for the Item number refers to the day of the week. Enter 0 (Sunday) through 6 (Saturday).
Business Hours Setup	5067	Hour at which greeting is to change to good evening	00 - 24	A prompt for the Item number refers to the day of the week. Enter 0 (Sunday) through 6 (Saturday).
Business Hours Setup	5068	(With parameter 5067) Minute at which greeting is to change to good evening	00 - 59	A prompt for the Item number refers to the day of the week. Enter 0 (Sunday) through 6 (Saturday).
(DOS) Call Transfer Setup / (WIN) PBX Information Setup	5000	Sequence to initiate an internal transfer	(Refer to technical bulletin and phone documentation)	
(DOS) Call Transfer Setup / (WIN) PBX Information Setup	5001	Sequence to initiate an external transfer	(Refer to technical bulletin and phone documentation)	
(DOS) Call Transfer Setup / (WIN) PBX Information Setup	5002	Sequence to complete an internal transfer	(Refer to technical bulletin and phone documentation)	
(DOS) Call Transfer Setup / (WIN) PBX Information Setup	5003	Sequence to complete an external transfer	(Refer to technical bulletin and phone documentation)	

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
(DOS) Call Transfer Setup / (WIN) PBX Information Setup	5004	Sequence to return from no answer on an internal call	(Refer to technical bulletin and phone documentation)	
(DOS) Call Transfer Setup / (WIN) PBX Information Setup	5005	Sequence to return from no answer on an external call	(Refer to technical bulletin and phone documentation)	
(DOS) Call Transfer Setup / (WIN) PBX Information Setup	5006	Sequence to return from busy on an internal call	(Refer to technical bulletin and phone documentation)	
(DOS) Call Transfer Setup / (WIN) PBX Information Setup	5007	Sequence to return from busy on an external call	(Refer to technical bulletin and phone documentation)	
(DOS) Call Transfer Setup / (WIN) PBX Information Setup	5008	Sequence to return from call screening on an internal call	(Refer to technical bulletin and phone documentation)	
(DOS) Call Transfer Setup / (WIN) PBX Information Setup	5009	Sequence to return from call screening on an external call	(Refer to technical bulletin and phone documentation)	
(DOS) Call Transfer Setup / (WIN) PBX Information Setup	5010	Sequence to transfer an internal 3-way call	(Refer to technical bulletin and phone documentation)	
(DOS) Call Transfer Setup / (WIN) PBX Information Setup	5011	Sequence to transfer an external 3-way call	(Refer to technical bulletin and phone documentation)	
(DOS) Call Transfer Setup / (WIN) PBX Information Setup	5014	Should VP system detect dial tone?	1 = Yes 0 = No	
(DOS) Call Transfer Setup / (WIN) PBX Information Setup	5023	Confirmation digits meaning ‘Yes’	(Refer to technical bulletin and phone documentation)	
(DOS) Call Transfer Setup / (WIN) PBX Information Setup	5054	Should VP system use transfer bypass digit?	0 = None 1 = First 2 = Last	
(DOS) Call Transfer Setup / (WIN) General Information Setup	5055	Maximum time for 3-way call (minutes)	0 - 30	

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Class of Service Setup	7000	Number of days after which Old messages are auto-deleted	0 - 99	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7001	Number of days after which New messages are auto-deleted	0 - 99	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7002	Maximum message length (seconds) for a message	0 - 999	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7003	Maximum number of messages allowed in mailbox	0 - 200	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7004	Maximum greeting length (seconds)	0 - 999	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7005	Maximum number of personal greetings allowed	0 - 10	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7006	Play menu after greeting to callers?	1 = Yes 0 = No	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7007	Maximum lines allowed to hold for mailbox	0 - 32	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7008	Number of times to try extension before returning to queued caller	0 - 99	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7009	Say position in line to calls in queue?	1 = Yes 0 = No	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7010	Access to Group boxes allowed?	1 = Yes 0 = No	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7011	Supervisor status allowed?	1 = Yes 0 = No	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Class of Service Setup	7012	Caller access to P.A. system allowed?	1 = Yes 0 = No	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7013	Dial-out allowed?	1 = Yes 0 = No	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7014	Faxmail receipt allowed?	1 = Yes 0 = No	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7015	Default operator box during day service hours	(Valid mailbox number)	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7016	Default operator box during night service hours	(Valid mailbox number)	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7017	When exiting open mailbox, go to box #	(Valid box number)	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7018	Digits callers can press while holding	1 - 9, #	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Class of Service Setup	7020 to 7029	Restricted outcalling numbers	(Any digits)	A prompt for the Item number refers to the Class of Service number. Enter 0 - 7.
Directory Box Setup	2001	Action to take if no digits are dialed	0 = Return 1 = Say 'Goodbye' 2 = Go to another box 3 = Hang up	A prompt for the Item number refers to the box number. Enter the box number.
Directory Box Setup	2002	Box associated with parameter 2001	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Directory Box Setup	2600	Number of time to play greeting	1 - 3	A prompt for the Item number refers to the box number. Enter the box number.
Directory Box Setup	2601	Box associated with parameter 2602	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Directory Box Setup	2602	Action to take if requested name is not found	0 = Return 1 = Say 'Goodbye' 2 = Go to another box 3 = Hang up	A prompt for the Item number refers to the box number. Enter the box number.
Directory Box Setup	2603	Say box number before transferring call?	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.
Directory Box Setup	2604	Allow callers to hear complete directory listing?	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.
Directory Box Setup	2605	Maximum number of digits to collect from callers	1 - 9	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	2001	Action to take of caller orders additional fax documents	0 = Return 1 = Say 'Goodbye' 2 = Go to another box 3 = Hang up	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	2002	Box associated with parameter 2001	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	2900	Type of fax document	0 = Text 1 = Wide text 2 = Graphics 3 = IVR response	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	2901	Number of mailbox that owns the Fax box	(Valid mailbox number)	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	2902	Action to take if caller has ordered the maximum number of documents allowed	0 = Return 1 = Say 'Goodbye' 2 = Go to another box 3 = Hang up	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	2903	Box associated with parameter 2902	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	2904	Document security code	(Security code you specify)	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	5028	The number of the line to which fax board 1 is connected	(Line number)	A prompt for the Item number refers to the box number. Enter the box number.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Fax Distribution Setup	5029	The number of the line to which fax board 2 is connected	(Line number)	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	5030	The number of the line to which fax board 3 is connected	(Line number)	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	5031	The number of the line to which fax board 4 is connected	(Line number)	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	5032	Resolution at which faxes are sent	0 = Fine 1 = Standard	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	5033	(With parameter 5034) Interval (in minutes) at which retry calls are made when fax back call is unsuccessful	1 - 30	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	5034	Number of retry calls made when fax back call is unsuccessful	0 - 10	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	5035	Maximum faxes the caller can request in one call	1 - 10	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	5036	(With parameter 5041) The type of restriction to be placed on the call-back numbers specified	0 = Block only these 1 = Allow only these	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	5037	Fax cover page preference	0 = Default 1 = Custom 2 = No Cover	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	5038	Method used to transmit faxes	0 = Offer option 1 = Call back always 2 = Same call always	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	5039	Prefix a ‘1’ for long distance numbers?	0 = No 1 = Yes	A prompt for the Item number refers to the box number. Enter the box number.
Fax Distribution Setup	5040	Digits to strip from call-back number	(Refer to technical bulletin and phone documentation)	A prompt for the Item number refers to the box number. Enter the box number.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Fax Distribution Setup	5041	(With parameter 5036) Restricted call-back numbers	(Restricted digits)	A prompt for the Item number refers to 1 sequence of restricted digits. You can specify up to 20 restricted digit sequences. At the Item number prompt, enter 1 - 20, then enter the restricted digit sequence as prompted.
General Information Setup	5017	Fast-forwarded / rewind seconds	0 - 10	
General Information Setup	5024	Technician password	Up to 10 digits	
General Information Setup	5025	Customer password	Up to 10 digits	
General Information Setup	5027	Digits needed to get line for external call	(Refer to technical bulletin and phone documentation)	
General Information Setup	5053	Store call log to:	0 = None 1 = File 2 = Printer (non-Windows systems only)	
General Information Setup	5056	(With parameter 5057) Maximum number of minutes call can last before being rerouted	0 - 30	
General Information Setup	5057	(With parameter 5056) Box to which calls are re-routed	(Valid box number)	
General Information Setup	5065	Exit to DOS hour	00-23	
General Information Setup	5066	Exit to DOS minutes	00-59	
Group Box Setup	2800	Maximum length of a message (seconds) that can be sent to this box	10 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Group Box Setup	2801 to 2850	Group box members	(Valid box numbers)	A prompt for the Item number refers to the box number. Enter the box number.
Holiday Schedule Setup	5050	(With parameter 5051) Holiday month	00-12	A prompt for the Item number refers to the holiday number. Enter 1 through 20.
Holiday Schedule Setup	5051	(With parameter 5050) Holiday date	01-31	A prompt for the Item number refers to the holiday number. Enter 1 through 20.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Holiday Schedule Setup	5052	Box to which calls are routed during holiday	(Valid box number)	A prompt for the Item number refers to the holiday number. Enter 1 through 20.
Line Information Setup	1000	Box to which calls on this line are routed during day service hours	(Valid box number)	A prompt for the Item number refers to the line number. Enter the line number.
Line Information Setup	1001	Box to which calls on this line are routed during night service hours	(Valid box number)	A prompt for the Item number refers to the line number. Enter the line number.
Line Information Setup	1002	Box to which calls on this line are routed during lunch service hours	(Valid box number)	A prompt for the Item number refers to the line number. Enter the line number.
Line Information Setup	1003	Rings before call is answered during day service hours	1 - 99	A prompt for the Item number refers to the line number. Enter the line number.
Line Information Setup	1004	Rings before call is answered during night service hours	1 - 99	A prompt for the Item number refers to the line number. Enter the line number.
Line Information Setup	1005	Rings before call is answered during lunch service hours	1 - 99	A prompt for the Item number refers to the line number. Enter the line number.
Line Information Setup	1006	Outgoing calls allowed on this line?	1 = Yes 0 = No	A prompt for the Item number refers to the line number. Enter the line number.
Line Information Setup	1007	Line belongs to Line Group A?	1 = Yes 0 = No	A prompt for the Item number refers to the line number. Enter the line number.
Line Information Setup	1008	Line belongs to Line Group B?	1 = Yes 0 = No	A prompt for the Item number refers to the line number. Enter the line number.
Line Information Setup	1009	Line belongs to Line Group C?	1 = Yes 0 = No	A prompt for the Item number refers to the line number. Enter the line number.
Line Information Setup	1010	Line belongs to Line Group D?	1 = Yes 0 = No	A prompt for the Item number refers to the line number. Enter the line number.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Mailbox Setup	2000	Mailbox owner's last name	(Digits that will allow the Dial-by-Name directory feature access this mailbox)	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2001	Action to be taken after caller leaves message	0 = Return 1 = Say 'Goodbye' 2 = Go to another box 3 = Hang up	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2002	Box associated with parameter 2001	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2100	Mailbox password	(Up to maximum digits specified during setup)	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2101	Sequence to turn on message waiting lamp	(See technical bulletin or phone documentation)	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2102	Sequence to turn off message waiting lamp	(See technical bulletin or phone documentation)	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2110	Box associated with parameter 2111	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2111	Action to be taken if caller chooses "other options"	0 = Return 1 = Say 'Goodbye' 2 = Go to another box 3 = Hang up	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2112	Mailbox has access to only Hotel guest privileges?	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.You can modify only one personal distribution list for the mailbox using the Teleparameter feature
Mailbox Setup	2113	Class of service assigned to mailbox	0 - 7	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2114	Mailbox to which this mailbox is a client, if this is a restricted mailbox	(Valid mailbox number)	A prompt for the Item number refers to the box number. Enter the box number.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Mailbox Setup	2115	Language in which greeting is to play if call is via D.I.D	0 - 9	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2120	Type of transfer	0 = None 1 = Blind 2 = Wait for answer 3 = Screen 4 = Wait for ring	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2121	Caller's name voiced upon pickup	0 = Always 1 = Day only 2 = Night only 3 = Schedule A 4 = Schedule B 5 = Schedule C 6 = Schedule D	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2122	Number of rings within which called party must answer before system determines a no answer condition	Number of rings	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2123	Call transfer schedule	0 = Always 1 = Day only 2 = Night only 3 = Schedule A 4 = Schedule B 5 = Schedule C 6 = Schedule D	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2124	3-way calling used	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2125	Record conversation?	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2126	Transfer destination	Extension number	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2130	(With parameter 2134) Type of pager	0 = None1 = Tone-only pager (no display)2 = Display pager	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2131	(With parameter 2134) Minutes between calls to pager	00 - 20	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2132	(With parameter 2134) Number of times to call pager	00 - 99	A prompt for the Item number refers to the box number. Enter the box number.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Mailbox Setup	2133	(With parameter 2134) Schedule during which calls should be sent to pager	0 = Always 1 = Day only 2 = Night only 3 = Schedule A 4 = Schedule B 5 = Schedule C 6 = Schedule D	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2134	Mailbox owner's pager number	(Pager number)	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2135	(Accessible only when the a Comdial phone system was selected during PBX Setup, see section 3) Mailbox owner allowed to record calls?	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2136	(Accessible only when the a Comdial phone system was selected during PBX Setup, see section 3) (With parameter 2135) Maximum minutes of call recording permitted	1 – 99	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2137	(Accessible only when the a Comdial phone system was selected during PBX Setup, see section 3) (With parameter 2135) Minimum seconds a recording must last to be retained	1 - 99	A prompt for the Item number refers to the box number. Enter the box number
Mailbox Setup	2138	(Accessible only when the a Comdial phone system was selected during PBX Setup, see section 3) (With parameter 2135) The interval at which an audible beep is sounded during calls being recorded	1 – 99 99 = no beep	A prompt for the Item number refers to the box number. Enter the box number
Mailbox Setup	2139	(Accessible only when the a Comdial phone system was selected during PBX Setup, see section 3) Play a ringburst when the caller begins to leave a message?	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2141	Action to be taken after personal greeting is played	0 = Wait for a digit 1 = Begin recording a message 2 = Page the mailbox owner 3 = Record a message, then page the mailbox owner	A prompt for the Item number refers to the box number. Enter the box number.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Mailbox Setup	2142	Hours after which messages are to be auto-forwarded	0 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2143	(With parameter 2142) Box to which new messages are to be auto-forwarded	(Valid mailbox number)	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2144	(With parameters 2142 and 2143) Schedule during which auto-forwarding is to be active	0 = Always 1 = Day only 2 = Night only 3 = Schedule A 4 = Schedule B 5 = Schedule C 6 = Schedule D	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup (WIN only)	2145	Uses client desktop applications	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup (WIN only)	2146	UM options:Non-UMDual message store Single message store	0 = Non-UM 1 = Dual message 2 = Single message 3 = TUI Browser	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup (WIN only)	2147	Automatically move/copy new messages to Box/SMTP address X after X hours	0 = Move 1 = Copy	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup (WIN only)	2148	First in, first out (FIFO) Last in, first out (LIFO)	0 = FIFO 1 = LIFO	A prompt for the Item number refers to the box number. Enter the box number.
Mailbox Setup	2151	(With parameter 2155) Number of times to run the message delivery cycle.	0 - 99	A prompt for the Item number refers to the box number. Enter the box number.You can modify only one message delivery set up for the mailbox using the Teleparameter feature.
Mailbox Setup	2152	(With parameter 2155) Number of times number is to be called	0 - 99	A prompt for the Item number refers to the box number. Enter the box number.You can modify only one message delivery set up for the mailbox using the Teleparameter feature.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Mailbox Setup	2153	(With parameter 2155) Minutes in between calls to number	2 - 99	A prompt for the Item number refers to the box number. Enter the box number.You can modify only one message delivery set up for the mailbox using the Teleparameter feature.
Mailbox Setup	2154	(With parameter 2155) Schedule during which message delivery is active	0 = Always 1 = Day only 2 = Night only 3 = Schedule A 4 = Schedule B 5 = Schedule C 6 = Schedule D	A prompt for the Item number refers to the box number. Enter the box number.You can modify only one message delivery set up for the mailbox using the Teleparameter feature.
Mailbox Setup	2155	Number to call for message delivery	(Phone or beeper number)	A prompt for the Item number refers to the box number. Enter the box number.You can modify only one message delivery set up for the mailbox using the Teleparameter feature.
Mailbox Setup	2159	Personal distribution list 1 enabled for mailbox?	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.You can modify only one personal distribution list for the mailbox using the Teleparameter feature.
Mailbox Setup	2160 to 2179	Personal distribution list 1 members	(Valid mailbox numbers)	A prompt for the Item number refers to the box number. Enter the box number.You can modify only one personal distribution list for the mailbox using the Teleparameter feature.
Mailbox Setup (WIN only)	2180	Enabled	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.You can modify only one message delivery set up for the mailbox using the Teleparameter feature.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Mailbox Setup (WIN only)	2181	Send fax mails to	Fax number (up to 40 digits)	A prompt for the Item number refers to the box number. Enter the box number.You can modify only one message delivery set up for the mailbox using the Teleparameter feature.
Mailbox Setup (WIN only)	2182	Immediately	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.You can modify only one message delivery set up for the mailbox using the Teleparameter feature.
Mailbox Setup (WIN only)	2183	Wait until mailbox contains X fax messages	Number of messages low = 0 high = 10	A prompt for the Item number refers to the box number. Enter the box number.You can modify only one message delivery set up for the mailbox using the Teleparameter feature.
Mailbox Setup (WIN only)	2184	Maximum X minutes	Number of minutes low = 0 high = 999	A prompt for the Item number refers to the box number. Enter the box number.You can modify only one message delivery set up for the mailbox using the Teleparameter feature.
(DOS) Other Customizations Setup / (WIN) General Information Setup	5018	Maximum box length caller can dial	2 - 4	
(DOS) Other Customizations Setup / (WIN) PBX Information Setup	5019	Seconds of initial pause before main greeting is played	0 - 10	
(DOS) Other Customizations Setup / (WIN) General Information Setup	5020	When VP system should play time and date	0 = When caller asks 1 = Before each message 2 = After each message	
(DOS) Other Customizations Setup / (WIN) General Information Setup	5021	Play called party's name when call is answered?	1 = Yes 0 = No	

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
(DOS) Other Customizations Setup / (WIN) General Information Setup	5022	Announce call when call is answered?	1 = Yes 0 = No	
(DOS) Other Customizations Setup / (WIN) Custom Flags Setup	5076 to 5079	Custom field (use under direction of technical support)	---	
(DOS) Other Customizations Setup / (WIN) Custom Flags Setup	5086 to 5089	Debug field (use under direction of technical support)	---	
Question Box Setup	2001	Action to take after questions are answered	0 = Return 1 = Say 'Goodbye' 2 = Go to another box 3 = Hang up	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2002	Box associated with parameter 2404	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2400	Number of mailbox that owns the Question box	(Valid mailbox number)	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2401	Replay digit answers for verification?	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2402	Voice answers? (versus digit)	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2403	Trigger owner mailbox notification of answers in this box?	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2404	Digits caller can press to exit this box	0 - 9, *, #	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2410	Answer type for Question 10	0 = Voice 1 = Digits	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2411	Answer type for Question 1	0 = Voice 1 = Digits	A prompt for the Item number refers to the box number. Enter the box number.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Question Box Setup	2412	Answer type for Question 2	0 = Voice 1 = Digits	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2413	Answer type for Question 3	0 = Voice 1 = Digits	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2414	Answer type for Question 4	0 = Voice 1 = Digits	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2415	Answer type for Question 5	0 = Voice 1 = Digits	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2416	Answer type for Question 6	0 = Voice 1 = Digits	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2417	Answer type for Question 7	0 = Voice 1 = Digits	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2418	Answer type for Question 8	0 = Voice 1 = Digits	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2419	Answer type for Question 9	0 = Voice 1 = Digits	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2420	If the answer type is digits, minimum number of digits that must be entered for valid answer to question 10.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2421	If the answer type is digits, minimum number of digits that must be entered for valid answer to question 1.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2422	If the answer type is digits, minimum number of digits that must be entered for valid answer to question 2.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2423	If the answer type is digits, minimum number of digits that must be entered for valid answer to question 3.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Question Box Setup	2424	If the answer type is digits, minimum number of digits that must be entered for valid answer to question 4.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2425	If the answer type is digits, minimum number of digits that must be entered for valid answer to question 5.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2426	If the answer type is digits, minimum number of digits that must be entered for valid answer to question 6.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2427	If the answer type is digits, minimum number of digits that must be entered for valid answer to question 7.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2428	If the answer type is digits, minimum number of digits that must be entered for valid answer to question 8.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2429	If the answer type is digits, minimum number of digits that must be entered for valid answer to question 9.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2430	If the answer type is digits, maximum number of digits that can be entered for valid answer to question 10.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2431	If the answer type is digits, maximum number of digits that can be entered for valid answer to question 1.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2432	If the answer type is digits, maximum number of digits that can be entered for valid answer to question 2.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2433	If the answer type is digits, maximum number of digits that can be entered for valid answer to question 3.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2434	If the answer type is digits, maximum number of digits that can be entered for valid answer to question 4.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2435	If the answer type is digits, maximum number of digits that can be entered for valid answer to question 5.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Question Box Setup	2436	If the answer type is digits, maximum number of digits that can be entered for valid answer to question 6.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2437	If the answer type is digits, maximum number of digits that can be entered for valid answer to question 7.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2438	If the answer type is digits, maximum number of digits that can be entered for valid answer to question 8.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2439	If the answer type is digits, maximum number of digits that can be entered for valid answer to question 9.	1 - 999	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2440	Number of seconds of silence before VP system determines caller has finished entering digits or speaking the answer for question 10.	1 - 99	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2441	Number of seconds of silence before VP system determines caller has finished entering digits or speaking the answer for question 1.	1 - 99	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2442	Number of seconds of silence before VP system determines caller has finished entering digits or speaking the answer for question 2.	1 - 99	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2443	Number of seconds of silence before VP system determines caller has finished entering digits or speaking the answer for question 3.	1 - 99	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2444	Number of seconds of silence before VP system determines caller has finished entering digits or speaking the answer for question 4.	1 - 99	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2445	Number of seconds of silence before VP system determines caller has finished entering digits or speaking the answer for question 5.	1 - 99	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2446	Number of seconds of silence before VP system determines caller has finished entering digits or speaking the answer for question 6.	1 - 99	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2447	Number of seconds of silence before VP system determines caller has finished entering digits or speaking the answer for question 7.	1 - 99	A prompt for the Item number refers to the box number. Enter the box number.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Question Box Setup	2448	Number of seconds of silence before VP system determines caller has finished entering digits or speaking the answer for question 8.	1 - 99	A prompt for the Item number refers to the box number. Enter the box number.
Question Box Setup	2449	Number of seconds of silence before VP system determines caller has finished entering digits or speaking the answer for question 9.	1 - 99	A prompt for the Item number refers to the box number. Enter the box number.
Routing Box Setup	2001	Action to take if no digits dialed	0 = Return 1 = Say 'Goodbye' 2 = Go to another box 3 = Hang up	
Routing Box Setup	2002	Box associated with parameter 2001	(Valid box number)	
Routing Box Setup	2300	Single-digit dialing destination for digit 0	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Routing Box Setup	2301	Single-digit dialing destination for digit 1	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Routing Box Setup	2302	Single-digit dialing destination for digit 2	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Routing Box Setup	2303	Single-digit dialing destination for digit 3	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Routing Box Setup	2304	Single-digit dialing destination for digit 4	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Routing Box Setup	2305	Single-digit dialing destination for digit 5	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Routing Box Setup	2306	Single-digit dialing destination for digit 6	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Routing Box Setup	2307	Single-digit dialing destination for digit 7	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Routing Box Setup	2308	Single-digit dialing destination for digit 8	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
Routing Box Setup	2309	Single-digit dialing destination for digit 9	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Routing Box Setup	2310	Single-digit dialing destination for *	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Routing Box Setup	2311	Single-digit dialing destination for #	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Routing Box Setup	2312	Single-digit dialing destination for non-DTMF digit (voice)	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Routing Box Setup	2313	Number of mailbox that owns the Routing box	(Valid box number)	
Routing Box Setup	2314	Box to which calls are transferred if invalid digits dialed	(Valid box number)	A prompt for the Item number refers to the box number. Enter the box number.
Routing Box Setup	2315	Number of times to play greeting	1 - 3	
Routing Box Setup	2316	Seconds to wait for a digit	0 - 9	
Routing Box Setup	2317	Basis used to route call	0 = Digits dialed 1 = Day of week 2 = Sequence number 3 = Database lookup 4 = Day or Night service	A prompt for the Item number refers to the box number. Enter the box number.
Routing Box Setup	2318	When digits received, wait for more digits?	1 = Yes 0 = No	A prompt for the Item number refers to the box number. Enter the box number.
(DOS)Technical Information Setup / (WIN) PBX Information Setup	5012	Hookflash length (milliseconds)	100 - 5000	
(DOS)Technical Information Setup / (WIN) PBX Information Setup	5013	Pause length (milliseconds)	10 - 5000	

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
(DOS)Technical Information Setup / (WIN) General Information Setup	5015	Seconds of silence before VP system ends recording	0 - 99	
(DOS)Technical Information Setup / (WIN) General Information Setup	5016	Seconds of non-silence before VP system ends recording	0 - 99	
(DOS)Technical Information Setup / (WIN) PBX Information Setup	5026	Disconnect digit sequence	(Refer to technical bulletin and phone documentation)	
(DOS)Technical Information Setup / (WIN) General Information Setup	5063	Hour at which system automatically updates MWI	00 - 23	
(DOS)Technical Information Setup / (WIN) General Information Setup	5064	(With parameter 5063) Minute at which system automatically updates MWI	00 - 59	
VM.CFG Setup	9001	transbypass=	See section 12.	
VM.CFG Setup	9003	dtmfon=	See section 12.	
VM.CFG Setup	9004	ignorenonsilence	See section 12.	
VM.CFG Setup	9007	internal=	See section 12.	
VM.CFG Setup	9011	pagetime=	See section 12.	
VM.CFG Setup	9012	pagerretry=	See section 12.	
VM.CFG Setup	9014	maxpasswordlength=	See section 12.	
VM.CFG Setup	9015	greetsil=	See section 12.	
VM.CFG Setup	9017	notifyreps=	See section 12.	
VM.CFG Setup	9019	interdigit=	See section 12.	
VM.CFG Setup	9023	detectpulse	See section 12.	
VM.CFG Setup	9025	auditdatabase	See section 12.	
VM.CFG Setup	9026	responsetime=	See section 12.	
VM.CFG Setup	9099	pa.init=	See section 12.	
VM.CFG Setup	9100	pa.cancel=	See section 12.	
VM.CFG Setup	9101	tutorialreps=	See section 12.	
VM.CFG Setup	9102	pa.repeats=	See section 12.	
VM.CFG Setup	9103	novideomemory	See section 12.	
VM.CFG Setup	9104	offhookdelay=	See section 12.	
VM.CFG Setup	9105	hardwareint=	See section 12.	
VM.CFG Setup	9106	ringon=	See section 12.	

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
VM.CFG Setup	9107	minimummessage=	See section 12.	
VM.CFG Setup	9108	maxinactive=	See section 12.	
VM.CFG Setup	9109	maxlockup=	See section 12.	
VM.CFG Setup	9118	languages=	See section 12.	
VM.CFG Setup	9120	dtmfsendon=	See section 12.	
VM.CFG Setup	9121	dtmfsendoff=	See section 12.	
VM.CFG Setup	9122	pa.busy=	See section 12.	
VM.CFG Setup	9123	lunchoperatorisday	See section 12.	
VM.CFG Setup	9124	samplingrate=	See section 12.	
VM.CFG Setup	9125	databaseline=	See section 12.	
VM.CFG Setup	9126	ignoredisconnects	See section 12.	
VM.CFG Setup	9127	nonametransfer	See section 12.	
VM.CFG Setup	9135	norecordbeep	See section 12.	
VM.CFG Setup	9144	repeatmw=	See section 12.	
VM.CFG Setup	9146	deleteafterfwd	See section 12.	
VM.CFG Setup	9150	remotepause=	See section 12.	
VM.CFG Setup	9160	ringreset=	See section 12.	
VM.CFG Setup	9161	notifyrings=	See section 12.	
VM.CFG Setup	9162	assumepageconfirm	See section 12.	
VM.CFG Setup	9163	assumehold=	See section 12.	
VM.CFG Setup	9165	externalfax	See section 12.	
VM.CFG Setup	9166	faxtimeout=	See section 12.	
VM.CFG Setup	9167	nopcbeep	See section 12.	
VM.CFG Setup	9174	cdspeed=	See section 12.	
VM.CFG Setup	9182	ignoreinitialdisconnect	See section 12.	
VM.CFG Setup	9190	lineaccessontransfer	See section 12.	
VM.CFG Setup	9192	24hourclockdisplay	See section 12.	
VM.CFG Setup	9203	linesconnected=	See section 12.	
VM.CFG Setup	9206	qboxposconfirm	See section 12.	
VM.CFG Setup	9207	qboxdataprint	See section 12.	
VM.CFG Setup	9208	qboxarchive	See section 12.	
VM.CFG Setup	9209	pagerprefix=	See section 12.	
VM.CFG Setup	9210	pagerappend=	See section 12.	
VM.CFG Setup	9214	omitgroupsender	See section 12.	
VM.CFG Setup	9216	pagertrail=	See section 12.	
VM.CFG Setup	9218	longhookflash=	See section 12.	
VM.CFG Setup	9219	cp.dialtone=	See section 12.	
VM.CFG Setup	9220	cp.busy=	See section 12.	
VM.CFG Setup	9221	cp.invalid=	See section 12.	
VM.CFG Setup	9222	cp.dnd=	See section 12.	
VM.CFG Setup	9223	cp.ans=	See section 12.	

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
VM.CFG Setup	9224	cp.initring=	See section 12.	
VM.CFG Setup	9225	cp.interring=	See section 12.	
VM.CFG Setup	9226	cp.noans=	See section 12.	
VM.CFG Setup	9227	onhookdtmf	See section 12.	
VM.CFG Setup	9229	answerack=	See section 12.	
VM.CFG Setup	9232	senddisconnect=	See section 12.	
VM.CFG Setup	9256	playbackdelay=	See section 12.	
VM.CFG Setup	9273	cp.disconnect=	See section 12.	
VM.CFG Setup	9282	qboxdataprinteject	See section 12.	
VM.CFG Setup	9283	qboxuseconfirmnumbers	See section 12.	
VM.CFG Setup	9289	qboxhideacctnumbers	See section 12.	
VM.CFG Setup	9291	keepmessagesnew	See section 12.	
VM.CFG Setup	9295	pooledring=	See section 12.	
VM.CFG Setup	9296	mboxdefaultdigit=	See section 12.	
VM.CFG Setup	9301	greeting.noanswer=	See section 12.	
VM.CFG Setup	9302	greeting.busy=	See section 12.	
VM.CFG Setup	9303	greeting.dnd=	See section 12.	
VM.CFG Setup	9337	noaccountinlog	See section 12.	
VM.CFG Setup	9339	greeting.night=	See section 12.	
VM.CFG Setup	9340	faxpause=	See section 12.	
VM.CFG Setup	9342	samecallfaxok	See section 12.	
VM.CFG Setup	9343	mwonreps=	See section 12.	
VM.CFG Setup	9344	mwoffreps=	See section 12.	
VM.CFG Setup	9346	faxprefix=	See section 12.	
VM.CFG Setup	9349	faxgeneraldelivery=	See section 12.	
VM.CFG Setup	9351	initialpauseidp=	See section 12.	
VM.CFG Setup	9352	directoryidp=	See section 12.	
VM.CFG Setup	9353	messagepausetime=	See section 12.	
VM.CFG Setup	9354	sharefaxports	See section 12.	
VM.CFG Setup	9359	flowcontrol=	See section 12.	
VM.CFG Setup	9360	fastacdtransfer	See section 12.	
VM.CFG Setup	9361	pmsviatextfiles	See section 12.	
VM.CFG Setup	9364	serviceobservecode=	See section 12.	
VM.CFG Setup	9365	acdpause=	See section 12.	
VM.CFG Setup	9383	wakeuprings=	See section 12.	
VM.CFG Setup	9384	ivrpromptlanguage=	See section 12.	
VM.CFG Setup	9388	volume=	See section 12.	
VM.CFG Setup	9389	noserialmwrefresh	See section 12.	
VM.CFG Setup	9390	basiccptones	See section 12.	
VM.CFG Setup	9392	extrarotarytime=	See section 12.	
VM.CFG Setup	9393	transferring=	See section 12.	

Task (Continued)	Param. Number	Description	Acceptable Values	Notes:
VM.CFG Setup	9394	dialtonefrequency=	See section 12.	
VM.CFG Setup	9395	dialtone2frequency=	See section 12.	
Serial Number	4000	Voices the VP system serial number.	—	
NUMLINES.TXT	4001	Adjusts the code number authorizing the number of ports allowed.	(Code supplied by Technical Support or Sales)	
SWITCHES.TXT	4002	Adjusts the code number authorizing system optional features.	(Code supplied by Technical Support or Sales)	
LOGINS.TXT	4003	Adjusts the code number that controls the number of VCM logins allowed.	(Code supplied by Technical Support or Sales)	
PBXLINK.TXT	4004	Adjusts the code number authorizing certain phone system-related features.	(Code supplied by Technical Support or Sales)	

The following table identifies values you can specify to indicate special information in some fields:

Values	Indicate
***1	A
***2	B
***3	C
***4	D
***5	E
***6	F
***7	X
***8	Pause
***9	Hookflash
***0	Clears the field entry

12. CONFIGURATION FILE OPTIONS

There are configuration parameters available in the VP system that you cannot access or change from VP system screens. Because these parameters do not need to be adjusted during most installations, they are grouped and housed in one configuration file, VM.CFG. Throughout this manual, you are provided information on how you can adjust various VM.CFG parameters so they can best suit non-standard applications of the VP system. VM.CFG parameters and their available options are listed in this section.

You configure a VM.CFG parameter by adding a configuration line specifying that parameter to other configuration lines in the VM.CFG file, which is located by default in the \VM directory. With some VM.CFG parameters, you must indicate a value to which the parameter is to be set. With other parameters, you simply add the parameter name to the file VM.CFG to invoke its functionality. The information in this section details any implementation considerations that affect each parameter.

You modify the contents of the VM.CFG file using an editor. To invoke the DOS editor, for example, from a command prompt, type `EDIT VM.CFG` then press <Enter>.

Note:	On DOS-based systems, you must shut down the VP system before editing the VM.CFG file. On Windows-based systems, you do not need to shut down the VP system to edit the VM.CFG file. You do, however, need to restart the VP system before any change you make will take effect. See section 2.5 for information on stopping and starting both DOS-based and Windows-based systems.

You can add spaces between lines in the VM.CFG file to keep the configuration file readable. You can also include comments in the file. The VP system considers any line beginning with an asterisk (*) to be a comment and ignores it.

Note:	The default setting shown for each parameter is active when *either*: (a) The file entry is omitted from the VM.CFG file (b) The file entry is included in the VM.CFG file but is preceded by a *. If a default value meets the needs, it is not necessary to make a new entry in the file. It may be necessary, however to *remove* an entry if you want to make the default parameter value active.

The following table is an alphabetical listing of all the options available in the configuration file. Each is described in detail in this section.

Available Parameters		
• 24-hour clock display	• External long hookflash	• Mailhox Suspension Timer
• Accept external msgs	• External msg path	• Max lockup
• Account is box	• Extra fax retries	• Max password length
• ACD pause	• Fast ACD transfer	• Max TTS streams
• Add line feed	• Fast fax	• Mbox default digit
• Ans machine parms	• Fast notification	• Menu options
• Answer ack	• Fax general delivery	• Message handshake
• Assume hold	• Fax link	• Message pause time
• Assume page confirm	• Fax order path	• Minimum message
• Audit database	• Fax pause	• Monitor
• Audit msgcount	• Fax prefix	• MW off reps
• Auto create mailboxes	• Fax reserved ring wait	• MW on reps
• Auto exit to DOS	• Fax timeout	• MW priority
• Auto forward priority	• Fax trace file	• MW Q size
• Auto start	• FF digit	• No account in log
• Basic CPTones	• Fixed language	• No name transfer
• Brooktroutdelay	• Flow Control	• No PC beep
• CD speed	• Get async DTMF	• No record beep
• Check box alias	• Greeting.busy / noanswer / DND	• No serial MW refresh
• Cleardown delay	• Greeting.night	• No video memory
• Color.x.y	• Greet sil	• Notify priority
• CP.x	• Group box distribution priority	• Notify reps
• Custom	• Hardware int	• Notify rings
• Database line	• Host	• Offhook delay
• Database timeout	• Ignore disconnects	• Omit group sender
• Date format	• Ignore DTMF	• Onhook DTMF
• Delete after fwd	• Ignore initial disconnect	• Outbound delay
• Delete queue burst size	• Ignore nonsilence	• PA.busy
• Delete queue frequency	• Initial pause IDP	• PA.cancel
• Deliver autofwd email immed	• Inter digit	• PA.init
• Detect pulse	• Internal	• PA.repeats
• Dial	• IVR prompt language	• Pager append
• Dialtone frequency	• IVR voice file path	• Pager prefix
• Dialtone on	• Keep messages new	• Pager retry
• Directory IDP	• Languages	• Pager trail
• Disable tutorial	• LH TTS voice ID	• Page time
• DTMF on	• Lines connected (Dialogic D42-SX, -NS, -SL boards only)	• Playback delay
• DTMF send on	• Link format	• PMS via text files
• DTMF send off	• Local spkr	• Pooled ring
• Export path	• Long hook-flash	• Pulse calibration
• External fax	• Lunch operator is day	• Pulse speed

Available Parameters (Continued)		
• Qbox archive	• Sampling rate	• TTS buffer size
• Qbox data path	• Save trace	• Tutorial reps
• Qbox data print	• Screen saver	• UM Name=TCP, <port>,<IP address>
• Qbox data print eject	• Send disconnect	• Use Enterprise
• Qbox hide acct numbers	• Serial disconnect delay	• Use L&H TTS
• Qbox pos confirm	• Service observe code	• Use LCD menus
• Qbox use confirm numbers	• Share fax ports	• Use printer
• Remain offhook	• SMDI answer first	• Unitized
• Remote pause	• Special ans digit	• VCM answer delay
• Repeat MW	• T1 port	• VCM channel timeout
• Response time	• TC name	• VCM line group
• Retry fax always	• TDD digit	• VCMname=TCPIP
• REW digit	• Tone	• Volume
• Ring on	• Trans bypass	• Wakeup rings
• Ring reset	• Transfer ring	• Xfer name time
• Same call fax OK		

Configuration File Entry	Description	Minimum Value to Maximum Value	Default Setup
24 HOUR CLOCK DISPLAY (Enter this as one line of text in the VM.CFG file.)	This parameter causes the clock display in the LINE STATUS screen (DOS-based systems) / LINE ACTIVITY screen (Windows-based systems) to display in 24-hour format instead of the standard AM - PM format and causes the VP system to announce verbal message time-stamps in 24-hour format (for example, *"Wednesday, July 3 at 13:24*").		12-hour AM - PM format.
ACCOUNT IS BOX	If an account number has been collected for a call, the VP system stores the account number with any message that is recorded during that call. This account number is treated as a sequence of digits. However, you can tell the VP system to interpret an account number as a box number (for example, so the auto-reply feature works). Use this option to tell the VP system which account numbers (based on the number of digits) should be regarded as box numbers. For example, to tell the VP system that account numbers consisting of 3 or fewer digits should be interpreted as box numbers, enter the following line: ACCOUNT IS BOX=3	0 to 9	Account numbers that contain 4 or fewer digits are interpreted as box numbers.
ACD PAUSE	After the VP system tries an ACD extension and determines it is busy, it pauses for a second, then tries the next extension listed in the ACD box. The pause allows it time to detect a disconnect tone, an error tone, etc. If you find that the system is not detecting disconnects while processing ACD calls, try increasing the length of this pause. For example, if you decide to allow the VP system 4 seconds to detect disconnect tones between calls, include the following line in the VM.CFG file: ACD PAUSE = 4	1 to 10	One second.
ADD LINE FEED	If you send log files or reports to the printer and the output is garbled, it is probably because the printer does not automatically add a line-feed after every carriage-return character. Use this parameter to force a line-feed. Most laser-printers require this option.		Do not inject a carriage-return when sending data to the printer.
ANS MACHINE PARMS (Enter this as one line of text in the VM.CFG file.)	This option is used in the optional Outbound Telemarketing module. It tells the VP system how to determine whether a call has been answered by a real person or an answering machine.		See section 28.
ANSWER ACK	This parameter was designed for those telephone systems (typically in a Service Bureau environment) that require an acknowledgment signal from the VP system when it answers a call. The acknowledgment is in the form of from 1 to 32 DTMF digits (0 - 9, *, #, A, B, C, or D), for example: answer ack = aaa		No answer acknowledgment digits are sent.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
ASSUME HOLD	When the VP system attempts to transfer a call to an extension but finds it busy, it offers the caller some options, including the option to hold. If the caller does not make a selection, then the VP system assumes that he/she wants to remain on hold. Periodically, the VP system goes back to the caller, telling him/her that the called party is still busy and asking if he/she still wants to remain on hold. By default, the sixth time that the VP system asks this question, it does not make this assumption, but tells the caller that he/she must press 6 if he/she wants to remain on hold. If the caller does not make a selection, the VP system plays the mailbox owner's personal greeting, offering to take a message, etc. If you want the VP system to *always* assume that the caller wants to remain on hold, enter the following line in the VM.CFG file: ASSUME HOLD = 99	1 to 1000	If no key is pressed in response to the offer to hold, the VP system places the call on hold the first 5 times. If no key is pressed the sixth time the caller is asked, the VP system plays the mailbox owner's personal greeting and continues as normal. **Note:** In Version 8.0, the default was 0 (the VP system required that the caller always press a key to remain on hold).
ASSUME PAGE CONFIRM (Enter this as one line of text in the VM.CFG file.)	When a caller reaches a mailbox whose owner has a digital pager, the caller is prompted to enter his/her own telephone number. The VP system then plays the number back and asks for confirmation (*"The number is 555-2345. If this is correct, press 1"*). If the caller presses any other key or no key at all, then the VP system does not page the called party. Use this parameter if you want the VP system to page the called party even if no digit is pressed.		If **1** is not pressed, the VP system does *not* page the called party.
AUDIT DATABASE	If you include this option (recommended), then the VP system performs an audit of its database every time you start it up. This involves checking that all the necessary voice files exist on the disk. As shipped, the VP system has this entry included in the VM.CFG file.		Audit not enabled.
AUDIT MSG COUNT	To ensure ongoing synchronization of the message count between each subscriber's desktop telephone and Inbox window, the VP system periodically audits the subscriber's voice mail and e-mail message counts and makes necessary updates to message waiting lamps, LCD displays, and the Inbox window. This option identifies, in minutes, how often this audit is run. Note that by increasing the audit rate, you slow other call processing tasks on the system. For this reason, it is recommended you not change this parameter unless directed to do so by Technical Support.	0 (no audit performed) to 2040	60

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
AUTO CREATE MAILBOXES (Enter this as one line of text in the VM.CFG file.)	Include this parameter to automate the creation of mailboxes for extensions that do not have them. If a call is routed to the VP system from an extension that was busy or unanswered, and the integration digits indicate the call is from an extension number for which there is no matching mailbox, the VP system automatically creates a new mailbox with that extension number by copying the prototype mailbox 9994. The caller reaches this mailbox and is prompted to leave a message.		Auto create not enabled.
AUTO EXIT DISCONNECT (Enter this as one line of text in the VM.CFG file.)	On DOS-based systems only. This parameter specifies the time (in seconds) that calls are given to clear when the system is automatically exiting to DOS to perform maintenance functions. The parameter is entered as: AUTO DISCONNECT = *N* where *n* is the number of seconds calls are given to clear.	0 to 240	30
AUTO FORWARD PRIORITY (Enter this as one line of text in the VM.CFG file.)	While the VP system is not busy handling calls, it performs several low-priority tasks, such as self-checks, display updates, etc. One of these tasks is to scan the mailboxes to see if one has a message that is ready to be auto-forwarded. Since this is a low-priority task, you may see some delay between the time when a message is due to be auto-forwarded and the time when the message actually appears in the new mailbox. If you want to minimize these delays, you can boost the priority of this task. The priority value can vary from 1 through 9, with 9 being the highest priority. Do not adjust this value unless you are sure that it is causing a problem. By allocating a higher priority to this task, you are taking processing time away from other tasks.	1 to 9	1.
AUTO START	On DOS-based systems only. If no database password has been assigned, the VP system goes to the main database menu on startup. If you prefer to have it go immediately to the LINE STATUS screen, either assign a database password, or include this option in the VM.CFG file.		Go to database main menu if no database password assigned.
BASIC CPTONES	Include this option in the VM.CFG file if you do not want the VP system to use Dialogic Perfect Call call-progress tone detection. The system will instead use an older method of detecting call-progress tones. This option should only be invoked if advised by Technical Support.	Not applicable	Uses Dialogic PerfectCall

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
BROOKTROUTDELAY	On software release 10.4 systems (or above) with Brooktrout Rhetorex boards, this parameter controls the start-up pause of the KVT Voice Mail Manager after a message audit. The type of voice boards installed in the PC will be determined by a registry setting. If the registry setting cannot be found or the system is not using Brooktrout boards, the delay will not occur. The parameter is entered as: BROOKTROUTDELAY = *N* where *n* is the number of seconds of the delay.	60 to 32767 seconds	60 seconds
CD SPEED	This parameter controls the playback of messages voiced through the telephone when the subscriber presses 9 to fast-forward the message. The parameter is entered as: CD SPEED = *N* where *n* is 1, 2, or 3. CD SPEED=1: The 9 key jumps message playback ahead 5 seconds. CD SPEED=2: The 9 key toggles message playback from normal to accelerated fast forward to normal. CD SPEED=3: The 9 key toggles message playback from normal to accelerated fast forward to slow fast forward to normal.	1 to 3	1 on NT and 2000-based systems 2 on DOS-based systems
CHECK BOX ALIAS	This parameter works in conjunction with a text file ALIAS.TXT in the \VM subdirectory. It allows users to map an "alias" number to a mailbox. If a caller specifies the alias number (at the prompt to enter an extension, for example) the call is sent to the mapped mailbox and transferred according to the rules set up in that mailbox. The text file ALIAS.TXT in the \VM subdirectory must be formatted as: *xxxx=yyyy* where *xxxx* is the alias number and *yyyy* is the mailbox to which the alias number is mapped.		

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
CLEARDOWN DELAY	When the VP system is placing outgoing calls (for pager notification, message delivery, Outbound Telemarketing, etc.), this is the time (*n*, in seconds) after completing a call before another outgoing call is attempted. The parameter is entered as: CLEARDOWN DELAY = *N* Priority is always given to incoming calls. If no lines are available to place an outgoing call at the expiration of this timer, the VP system automatically re-checks for a free line every few seconds.	1 to 10	6 seconds.
COLOR.X.Y	On DOS-based systems only. You can re-define which colors the VP system should use when displaying screens, menus, etc. The available colors are: Black 0 Blue 1 Green 2 Cyan 3 Red 4 Magenta 5 Brown 6 White 7 These can be assigned to menus, panels (input screens), help screens, and the LINE STATUS screens as follows: color.menu.fg = 0*sets menu foreground to black* color.menu.bg = 1 *sets menu background to blue* color.panel.fg = 7*sets panel foreground to white* color.panel.bg = 4*sets panel background to red* color.help.fg = 0 *sets help foreground to black* color.help.bg = 2*sets help background to green* color.label.fg = 7*sets Line Status foreground to white* color.label.bg = 0*sets Line Status background to black*		As displayed.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
CP.*x*	Some telephone system have the capability to replace standard call-progress tones (ringback tone, busy tone, dial tone, etc.) with DTMF tones. This tends to make integration with the VP system faster and more reliable. These parameters must be defined in the VM.CFG file. Note that not all telephone systems with this capability have all the tones listed below. CP.ANS CP.BUSY CP.DND CP.NOANS CP.INITRING CP.INTERRING CP.INVALID CP.DISCONNECT CP.DIAL TONE Before entering any of these parameters in the vm.cfg file, see the appropriate Technical Bulletin for the telephone system. **Additional Conditions:** Use of the CP.*x* parameters also requires entry of the HOST=IB parameter in the VM.CFG file.		Not enabled (the VP system expects standard call-progress tones).
CUSTOM	You may use this parameter to customize the VP system for a particular telephone system or special application. The parameter is entered as: CUSTOM = *N* where *n* is a number representing the particular customized operating parameter. These parameters and their descriptions are described in the appropriate sections of this Installation Guide and in the VP system Technical Bulletins. Do not use a CUSTOM parameter unless you are instructed to do so by this manual, a Technical Bulletin, or Technical Support personnel. **Note:** You can enter up to 4 CUSTOM parameters on the OTHER CUSTOMIZATIONS screen (systems) or 8 on the CUSTOM FLAGS screen (Windows systems). Additional parameters, if required, can be entered in the VM.CFG file.		

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
DATABASE LINE	On DOS-based systems only. This parameter indicates to the VP system which line is to be used when the system records names, greetings, etc., from the BOX INFORMATION screens and when recording system prompts on DOS-based systems using the prompt recording utility. For example, if you want to use line 2 as the one on which you make the recordings, enter the following line in the VM.CFG file: DATABASE LINE = 2 This parameter affects both dial-up connections and direct connections using optional audio coupling devices.		Line 1.
DATABASE TIMEOUT	The VP system customer database is password protected to prevent access by unauthorized personnel. Once you log on to the system, the VP system monitors keyboard activity. If no entries are made for *n* minutes, you are automatically logged out of the system. The range of the timer is 1 - 120 minutes. You can adjust it by entering: DATABASE TIMEOUT = *N*	1 to 120	5 minutes.
DATE FORMAT	This parameter can be used to alter the format of the date in files and reports recorded on disk or sent to a printer. The parameters are **M**(onth), **D**(ay) and **Y**(ear). To print the date in the format Day-Month-Year, the entry would be: DATE FORMAT = DMY Three options are available: MDY, DMY or YMD		MDY (U. S. standard).
DELETE AFTER FWD	After listening to a message in the mailbox, one of the options is to forward the message to another mailbox. Using this parameter automatically deletes messages from the mailbox after they have been manually forwarded to another mailbox. Note that this parameter does not affect the mailbox feature AUTOMATICALLY FORWARD NEW MESSAGES TO BOX X AFTER Y HOURS. Messages that are forwarded with this feature are *always* deleted from the original mailbox.		The VP system leaves a copy of the original message in the mailbox.
DELETE QUEUE FREQUENCY (Enter this as one line of text in the VM.CFG file.)	On Windows-based systems only. This parameter specifies the rate in seconds at which the VP system checks the delete queue for entries to delete. To indicate the queue is to be checked every 5 seconds, make the following entry in the VM.CFG file: DELETE QUEUE FREQUENCY = 5 Note that by assigning higher values to this parameter, you slow other call processing functions as the VP system must monitor the delete queue more frequently.	1 to 20	10

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
DELETE QUEUE BURST SIZE (Enter this as one line of text in the VM.CFG file.)	On Windows-based systems only. This parameter specifies the number of deleted items the VP system is to purge every time the delete queue is checked. For example, to purge 4 items, make the following entry in the VM.CFG file: `DELETE QUEUE BURST SIZE = 4` Note that by assigning higher values to this parameter, you slow other call processing functions.	1 to 20	1
DELIVER AUTOFWD EMAIL IMMED	This parameter tells the VP system to send a message that is being autoforwarded to an e-mail address immediately instead of queuing it for background processing. This works only for messages being sent to an e-mail address and only if the mailbox has been set up to autoforward immediately (if the hours = 0 and the time to deliver is within the scheduled time). If the destination for the autoforwarded message is a voice mailbox, then normal background processing occurs. Using this parameter will cause voice ports to be "off hook" slightly longer (microseconds) due to the immediate processing of the e-mail delivery.		The VP system queues messages that are being autoforwarded to an e-mail address for background processing.
DETECT PULSE	This parameter tells the VP system to listen for the pulse “ticks” generated by a dial-pulse (rotary) telephone. Note that this is audio detection *only*, not breaks in loop current, and it requires the use of special Rhetorex or Dialogic voice boards developed for this purpose. See also PULSE SPEED in this section.		Dial pulse detection not enabled.
DIAL	For the VP system’s dial-by-name directory feature to function, the relationship between the digits on the keypad and the letters of the alphabet must be defined. This parameter can re-define that relationship if required by the application. The North American standard assigns a digit to all letters of the alphabet except Q and Z, which the VP system defaults to the digit 1. The format of this parameter is *xyyy* where *x* is the dial pad key (0 - 9, * and #) and *yyy* represents one or more letters to be associated with that digit. For example, to re-map the letters Q and Z to correspond with the number zero, you would enter: DIAL = 0QZ		North American Standard keypad, plus 1QZ.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
DIALTONE FREQUENCY (Enter this as one line of text in the VM.CFG file.)	When included in the VM.CFG file, this option instructs the VP system to listen for specific dialtone frequency(ies) instead of only non-silence to determine when a call has ended. Enter as: DIAL TONE FREQUENCY=xxx or DIAL TONE FREQUENCY=XXX,YYY Where xxx is the frequency of the dialtone, and yyy (optional) is the second frequency of the same dialtone.		The VP system listens for non-silence only.
DIALTONE ON	Note: This parameter is effective only if the DIALTONE FREQUENCY parameter (see above) is being used. Include this option in the VM.CFG file to define the number of seconds of dialtone the VP system must detect before it is recognized. For example, to specify 2 seconds must be detected, enter: DIAL TONE ON = 2	1 to 5	3
DIRECTORY IDP	When the caller is using the telephone keypad to spell out the name of the person he/she is trying to reach, the VP system keeps accepting digits until there is a pause. By default, the VP system assumes the caller has finished dialing when there is a 2-second pause between digits. However, since the caller is trying to find the letters on the keypad, he/she might dial more slowly than normal, so you might want to allow more time between digits. For example, if you insert the following line in the VM.CFG file: DIRECTORY IDP = 4 The VP system keeps accepting digits until there is a pause of 4 seconds. Do not make this value too large, or the caller notices a delay when he/she has finished dialing.	1 to 9	Same as INTER DIGIT (see below).
DISABLE TUTORIAL	This option disables the tutorial feature for all mailboxes.		The tutorial is played for every new mailbox each time the mailbox owner opens his/her mailbox. The mailbox owner must disable it by pressing *.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
DTMF ON	This is the minimum duration of received DTMF tone that the VP system considers as a valid digit. Tones of a shorter duration are ignored. Some telephone systems may generate a shorter duration tone (when using 'speed dial'). It is best to re-configure the telephone system to send longer duration tones. If this is not possible, this parameter may be used to reduce the time the VP system considers as a valid DTMF digit. Enter the command line followed by the new digit time in milliseconds that you want the VP system to consider a valid tone. For 30 milliseconds, the entry would be DTMF ON = 30 **Note:** Setting the DTMF ON time too low may cause speech to be falsely detected as a DTMF tone. This is usually evidenced during recording of a message, since the receipt of any DTMF tone during recording causes the recording process to end.	1 to 1000	The VP system ignores any DTMF tones shorter than 50 milliseconds.
DTMF SEND ON	This specifies the length of a DTMF tone when the VP system is dialing out.	1 to 1000	100 ms.
DTMF SEND OFF	This parameter specifies the pause between DTMF tones when the VP system is dialing out.	1 to 1000	100 ms.
EXPORT PATH	This parameter defines a directory where the VP system stores the following types files: 1. The directory file BOX.DIR used by VCM 2. The message-count file MESSAGE.TXT containing the number of messages for each box in the system (for third-party applications)		The \VM subdirectory
EXTERNAL LONG HOOKFLASH (Enter this as one line of text in the VM.CFG file.)	This option is a default entry in the VM.CFG file on systems with Comdial integrations only. This parameter defines the duration of a hookflash.	60 to 3000 ms.	2000 ms.
EXTERNAL MSG PATH (Enter this as one line of text in the VM.CFG file.)	This parameter is used in conjunction with the ACCEPT EXTERNAL MSGS parameter. Use this parameter to tell the VP system where to look for messages generated by third-party applications. For example, if the other application created messages and placed them in a directory on the M drive called NEW, then you would include the following line in the VM.CFG file: EXTERNAL MSG PATH = M:\NEW		If this parameter is not specified, the VP system uses the path specified by the EXPORT PATH parameter. If no EXPORT PATH is specified, it uses the current path (the directory in which the VP system is installed).

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
EXTRA FAX RETRY	This parameter requires the installation of the Fax option. Use this parameter to tell the VP system to attempt the number of retry attempts specified in addition to the number specified on the Mailbox setup screen. For example,assume the fax retry attempts are specified as 3 on the Mailbox setup screen and the following line is specified in the VM.CFG file: EXTRA FAX RETRY = 20 The VP system will attempt 23 retries when automatically transmitting a fax mail message to a number specified on the Mailbox setup screen.	0-50	0.
FAST ACD TRANSFER (Enter this as one line of text in the VM.CFG file.)	Include this option on systems with Comdial integrations only. The option instructs the VP system to hook-flash only once when trying ACD extensions. If it encounters a busy extension, it does not have to hook-flash back to the caller then hook-flash again for dial tone. This makes ACD hunting faster.		Use normal hook-flashing techniques.
FAST FAX	This parameter requires the installation of both the Fax and Outbound Telemarketing optional module.		Fax broadcasting not allowed.
FAST NOTIFICATION	When a mailbox gets a new message, and the message delivery feature is active for the mailbox, the VP system calls the message delivery numbers. When the mailbox owner answers, he/she is prompted to enter the mailbox password. Once the password is entered, the VP system plays the new message. If the FAST NOTIFICATION option is included in the VM.CFG file, the VP system also prints a log entry to the default printer indicating that the mailbox owner heard the message. **Note**: The USE PRINTER option must also be included in the VM.CFG file. If the owner is not contacted by the time the VP system has completed the message delivery cycle the number of times specified in the mailbox, the VP system makes no log entry to the printer. The system does changes the status of the message to Saved, however, so if another message is generated the next day, the mailbox owner will hear that message first.		Successful message delivery attempts are not printed as a log entry to the default printer.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
FAX GENERAL DELIVERY z(Enter this as one line of text in the VM.CFG file.)	This option is available only if the FaxMail optional module is enabled. If the VP system detects fax tone while it is playing a Routing box greeting (for example, while it is playing the main company greeting in the initial Routing box), it accepts the fax documents and stores them in the FAX GENERAL DELIVERY mailbox. For example, if you inserted the following line in the VM.CFG file: FAX GENERAL DELIVERY = 4100 The VP system stores the incoming fax in mailbox 4100. (Of course, if the caller enters a mailbox number before sending the fax, the document is stored in the mailbox specified by the caller.)		Anonymous incoming faxes are stored in mailbox 888.
FAX LINK	This parameter is only for use with the optional Fax modules. This option tells the VP system which CAS multiplex number to use when communicating with the fax board(s). Do not change this unless you are familiar with the fax drivers. Typical values are CB, CC, and CD.		CB
FAX ORDER PATH	This parameter is only for use with the optional Fax modules using a third-party fax server. If you want to rename the directory with the default name FAXORDER, enter: FAX ORDER PATH = <*NEW DIRECTORY*> If you have located the fax documents on a disk drive other than the default (C:), enter: FAX ORDER PATH = <*DRIVE*> \ <*DIRECTORY*>		Directory name FAXORDER is located on drive C.
FAX PAUSE	This parameter is only for use with the optional Fax modules. When the VP system hands control of a call over to the fax board, it remains on the line long enough to ensure that the fax hardware has initialized and gone offhook. For example, if you include the following line in the VM.CFG file: FAX PAUSE = 10 The VP system remains on the line for 10 seconds after handing control to the fax board. During this time, the VP system does not interfere with the fax transmission.	1 to 60	25 seconds

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
FAX PREFIX	This parameter is only for use with the optional Fax modules. It allows you to specify a string of digits that the VP system should insert in front of the fax telephone number when it is about to make a call to deliver a fax. For example, if you include the following line in the VM.CFG file: FAX PREFIX = 01144 and a caller enters 5551212 as the telephone number for his/her fax machine, then the VP system dials 011445551212 when delivering the fax.		No digits
Fax Reserved Ring Wait	This parameter assumes that the line originally called into by the caller did not have a fax line associated with it, and the call required a transfer to a line that did. This parameter is used to specify the maximum wait time in seconds for a ring to occur on the line being transferred to that has the fax resource attached to it. For example, if you include the following line in the VM.CFG file: FAX RESERVED RING WAIT = 10 The VP system waits a maximum of 10 seconds for a ring to occur on the line with the fax resource. If the ring occurs after the time designated by this parameter, the caller will not hear the prompt that instructs them to initiate the fax.	5 to 60	15 seconds
FAX TIMEOUT	This parameter is only for use with the optional Fax modules. It sets the maximum amount of time (*n*, in minutes) allowed when sending a fax document into the VP system. Enter as: FAX TIMEOUT = *N*	1 to 200	15 minutes
FAX TRACE FILE	By default, fax diagnostics are written to the trace file TRACE.LOG. This option instructs the VP system to write the fax diagnostics to a different file. Enter as: FAX TRACE FILE = *[FILENAME]*		None
FF DIGIT	While the VP system is playing a Routing box greeting, the caller can skip forward 5 seconds or backward 5 seconds by using the FF DIGIT (fast-forward) or REW DIGIT (rewind). To use the FF digit, the following conditions must be met: 1. The FF digit must be defined in the VM.CFG file. 2. The DESTINATION FOR DIGIT field in that particular Routing box must be blank.		No FF digit defined.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
FIXED LANGUAGE	This parameter is only used when the system has the multi-lingual option. Normally, each line answers with the prompt, *"Press 1 for English, 2 for Spanish, or 3 for French,"* (or something similar). If you want certain lines to default to answering in a particular language always, then use this statement to indicate which lines should answer in which language. For example: FIXED LANGUAGE = *X, Y* where *x* is the line number and *y* is the language number.		Every line asks the caller to choose a language.
FLOW CONTROL	When using the serial link for certain PBX integrations, this parameter identifies whether or not the VP system should use hardware flow-control (i.e., CTS/RTS) on the link. The options are: Do not use hardware flow control for sending or receiving Use flow control in one direction only (receiving data) Use flow control in both directions For example: `FLOW CONTROL = 1` This means that the VP system should use flow control when receiving, but should not use it when sending data (it should signal when it is ready to receive data, but should assume that the distant end is always ready to receive). Note: Comdial serial integrations require this option be set to 1 in the VM.CFG file.	0 to 2	2 (flow control in both directions).
Get async dtmf	This parameter is for systems with Brooktrout (Rhetorex) voice boards but may be included on systems with Dialogic voice boards. This parameter eliminates error messages 3104 and 6319, which may occur on ring events.		None

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
GREETING.x	Use this option to tell the VP system which mailbox greeting it should play if a call transfer fails because of a busy, no-answer or do-not-disturb condition. For example, if you want the VP system to play greeting 0 (the default) if an extension does not answer, and greeting 1 if the extension is busy or in do-not-disturb mode, enter the following lines: GREETING.NO ANSWER = 0 GREETING.BUSY = 1 GREETING.DND = 1 If the mailbox does not have the appropriate greeting recorded, the VP system plays the currently active greeting for that mailbox. **Note:** If you specify a no-answer/ DND/ Busy greeting this way, it will take precedence over any Night / Lunch greeting you specify.		Plays the currently active greeting in all 3 cases.
GREETING.NIGHT	Use this option to tell the VP system which mailbox personal greeting it should play if a call transfer fails for any reason (for example, busy, no-answer or transfer feature disabled) while the system is in Night Service mode. For example, if you want the VP system to play greeting 5 at night, enter the following line: GREETING.NIGHT = 5 If the mailbox does not have the appropriate greeting recorded, the VP system plays the currently active greeting for that mailbox. **Note:** If you specify busy/no-answer/DND greetings as described above, they take precedence over the night greeting.	1 to 9	Plays the currently active greeting.
GREET SIL	When mailbox owners record their personal greetings, they are prompted to press # when finished. This is preferable, so there is no silence at the end of the greeting. If the owner does not press #, the recording stops using to the NUMBER OF SECONDS OF SILENCE TO END RECORDING field on the TECHNICAL INFORMATION screen (systems) / GENERAL INFORMATION screen (Windows systems). This time is also the amount of silence to end the recording of messages by *callers* to a mailbox. Using this parameter creates a separate timer for the number of seconds of silence to end the recording of a personal greeting. To make this time 3 seconds, enter: GREET SIL = 3	1 to 10	Uses the same timer (SECONDS OF SILENCE) for both owners recording greetings and callers recording messages.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
GROUP BOX DISTRIBUTION PRIORITY (Enter this as one line of text in the VM.CFG file.)	The VP system performs several tasks such as lighting message waiting lamps, message delivery, pager notification, etc. by executing each task in accordance to the priority it is assigned. Use this parameter to increase the priority the VP system assigns to delivering Group box messages. For example, to assign a priority of 3, include the following line in the VM.CFG file: GROUP BOX DISTRIBUTION PRIORITY = 3 A priority of 9 is the highest. Note that by assigning a higher priority to the delivery of Group box messages, you shift more system resources to this function, which slows the completion of other system tasks during Group box message delivery. If Group box distribution is not urgent in an organization, assign a priority of 3 or less.	1 to 9	Distribution priority is 1.
HARDWARE INT	The VP system uses hardware interrupt 5. If the PC is already using this interrupt for something else, use this parameter to choose a different interrupt. For example, to cause the VP system to use interrupt 3, include the following line in the VM.CFG file: HARDWARE INT = 3 As shipped, the VP system is configured to use interrupt 5, a setting that is compatible with most computers.	1 to 7	Interrupt 4. However, the VM.CFG file shipped with the VP system sets the hardware interrupt to 5.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup

HOST	Some integrations require a VM.CFG file HOST entry to inform the VP system of the method employed by the particular telephone system. These include out-of-band serial data port integrations (such as SMDI), some in-band integrations where normal call-progress tones are replaced by DTMF tones, and installations using special hardware to interface to proprietary (non-industry standard) telephone lines (such as Mitel COV ports). The format of the entry is:
	
	HOST = *AA*
	
	where *aa* represents a series of letters designating the special integration in use. Current valid entries and a brief description of each follow:
	
	`IB`
	In-band DTMF tones replace standard call-progress tones
	
	`NS`
	Connecting to Northern Telecom NORSTAR ports via Dialogic D42D-NS
	
	`SL`
	Connecting to Northern Telecom SL-1 ports via Dialogic D42D-SL
	
	`SM`
	Out-of-band (serial port) integration
	
	`SX`
	Connecting to Mitel COV ports via Dialogic D42D-SX
	
	`31`
	ITT / Cortelco System 3100
	
	Additional Conditions: HOST statements require software key code files to activate.
			Special integrations are not enabled.

IGNORE DISCONNECTS (Enter this as one line of text in the VM.CFG file.)	Normally, the VP system drops a call immediately if it detects a disconnect signal on the line (usually a short period of no line current). If the host telephone system sends these signals for any other reason (for example, metering or answer supervision), then you may need to tell the VP system to ignore these line signals. This parameter causes the VP system to ignore *all* disconnect signals. Use it with caution. A more common application is for the VP system to ignore only the *initial* disconnect signal, see the following entry in this section.		The VP system detects and acts upon line supervision signals.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
IGNORE DTMF	You can tell the VP system to ignore DTMF digits dialed by the caller while in specific boxes. For example, you might want to play the greeting in a Routing box to completion, without allowing the caller to skip over it by pressing a digit. You can use this option to specify one range of boxes. While the VP system is processing a box in that range, it ignores DTMF digits. For example, if you want to ignore DTMF digits while the VP system is in boxes 6000 through 6100, you enter the following line: IGNORE DTMF = 6000,6100 Use this option with caution. If a caller cannot enter digits, he/she may interpret it as a fault in within the voice mail.		Interpret every DTMF digit immediately.
IGNORE INITIAL DISCONNECT (Enter this as one line of text in the VM.CFG file.)	Some C.O. lines (typically Centrex) send a loop-break signal when the called party answers. The VP system always interprets these loop-breaks as an indication that the party at the distant end has disconnected, and it immediately terminates the call. By using the IGNORE INITIAL DISCONNECT option, you can indicate to the VP system that it should ignore loop-break signals while it is playing the greeting in the initial box, and also when it is about to transfer a call (while it is playing the prompt, *"Please hold while I transfer the call"*).		Interpret every loop-break signal as a disconnect indication.
IGNORE NONSILENCE (Enter this as one line of text in the VM.CFG file.)	While the VP system is recording and playing messages and prompts, it is continually monitoring the line, watching for an indication that the caller has disconnected. One such indication is the presence of dial tone on the line. Any continuous sound lasting more than a pre-defined period is considered to be *non-silence.* If you have recorded a prompt or greeting that contains long periods of continuous sound (for example, violin music for a background to the prompts), the VP system may interpret this as dial tone and disconnect calls prematurely. If you include the IGNORENONSILENCE option in the VM.CFG file, then the VP system ignores these continuous sounds during play operations. Remember, however, that the VP system now also ignores dial tone while it is playing messages, prompts etc. (Dial tone detection during record operations is not affected).		Detect dial tone during play operations and disconnect the call.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
INITIAL PAUSE IDP	If a digit is received during the initial pause (see section 7), the VP system stores it and watches for further digits. It accepts all digits until there is a pause of one second. The one second pause is how the VP system can tell that the PBX has finished sending digits. If the digits from the PBX are too slow (more than one second apart), then you need to tell the VP system to allow more time between digits. For example, if you insert the following line in the VM.CFG file: INITIAL PAUSE IDP = 2 The VP system keeps accepting digits until there is a pause of 2 seconds. Keep this value as low as possible, as it can introduce a delay at the beginning of each call.	1 to 9	1 second.
INTER DIGIT	The time (*n*, in seconds) a caller is allowed after dialing a digit to dial another digit before the VP system continues with call processing. INTER DIGIT = *N* **Note:** Whether or not the VP system waits for a second digit in a Routing box is set by the field WHEN DIGIT RECEIVED, WAIT FOR MORE DIGITS on the ROUTING BOX screen. The INTER DIGIT timer applies at every other point in the system, until the maximum allowable number of digits for the particular call processing function has been entered.	1 to 9	2 seconds.
INTERNAL	Defines the maximum length (*n*) of extension numbers in the system's internal dialing plan, entered as INTERNAL = *n*. Numbers of greater length are assumed to be *external* numbers and are treated as defined in: CALL TRANSFER screen (DOS-based systems) / PBX INFORMATION screen (Windows-based systems)—External call transfers GENERAL INFORMATION screen—Digits to get a line on an external call	1 to 9	4 digits.
IVR PROMPT LANGUAGE (Enter this as one line of text in the VM.CFG file.)	If you are using the optional IVR module, you can record your own voice prompts (see section 26 for information). By default, the VP system expects you to have recorded these files using language 9. However, if you used a different language number to record these prompts, use this option to tell the VP which language number you used.	1 to 10	Language 9.
IVR VOICE FILE PATH (Enter this as one line of text in the VM.CFG file.)	If you are using the optional IVRmodule, you can create voice files and include them in the database. Use this option to tell the VP system where the voice files are stored. For example, to indicate the files are stored in the C:\VM\P subdirectory, enter the statement: IVR VOICE FILE PATH=C:\VM\P		The directory where the greetings are stored.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
KEEP MESSAGES NEW (Enter this as one line of text in the VM.CFG file.)	When a mailbox owner has listened to a message, the VP system automatically changes its status from a NEW message to an OLD message. If you use this option, the VP system keeps the message as a NEW message, until the caller specifies that the message should be saved as OLD, by selecting option 2 from the message options menu.		Automatically mark the message as OLD.
LANGUAGES	If you are using the multi-lingual option, this statement is used to tell the VP system how many languages you intend to use. If you add another language, simply change this number. For example, if the system supports English, French, and Spanish, enter the statement: LANGUAGES=3		One language.
LH TTS VOICE ID	This parameter is used to change the default text-to-speech voice. Each numeric value represents a different TTS voice. For example, if you want to change the TTS voice: LH TTS VOICE ID=3	0 to 12	1 (Peter)
LINES CONNECTED (Dialogic D42-SX, -NS and -SL boards only)	When the VP system is equipped with one of the special application Dialogic voice boards listed above, each port is tested for proper communication with the host switch upon loading. The VP system tests each port in turn starting with port 1 until the number of ports shown here has been tested. Use this parameter to define the number (*n*) of VP system ports equipped: LINES CONNECTED = *N* This parameter has no effect unless the associated HOST parameter for the type of Dialogic board installed has been entered into the VM.CFG file.	1 to Max Lines Connected	None connected.
LINK FORMAT	The VP system has been designed to accommodate a wide variety of telephone systems that integrate to voice mail using a serial data link. The format of the serial data integration packets is defined in an ASCII text file with the extension .LNK. For example, Bell standard SMDI packets are defined by the file SMDI.LNK. Each VP system serial integration has an accompanying Technical Bulletin that describes the necessary filename (*xxxx*.LNK) for this parameter. For systems based on a format other than SMDI, the entry is: LINK FORMAT = *XXXX*.LNK This parameter also requires the optional Serial Integration Module and entry of the appropriate HOST statement in the VM.CFG file.		smdi.lnk.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
LOCAL SPKR	DOS-based systems only. When you use the screen menus in the VP system or in the prompt recording utility to play back prompts and greetings, you are asked to call into the system, and the recordings are played over the phone line. However, if you connect a local loudspeaker to the board, use this parameter to tell the VP system that it can play the recordings through the speaker, not requiring a dial-up connection.		Local speaker not connected, dial-up connection required.
LONG HOOK-FLASH	The **$** character may be used in the PA.INIT and PA.CANCEL sequences if an on-hook condition is required when using the "park and page" method. This parameter determines the length of the long hook-flash, where *n* is number of milliseconds for the on-hook condition: LONG HOOK-FLASH = *N*	100 to 600	4000 ms (4 seconds).
LUNCH OPERATOR IS DAY (Enter this as one line of text in the VM.CFG file.)	At various times during a call, the caller has the option to dial 0 for an operator. If the VP system is in Day Service mode, the call is routed to the day operator (as defined in the mailbox class of service). If the VP system is in Night Service mode, the call is routed to the night operator. While the VP system is in Lunch-service, operator calls are normally routed to the night operator. If you want to route operator calls to the day operator during Lunch Service mode, add the following line to the VM.CFG file: LUNCH OPERATOR IS DAY		Operator calls are routed to the night operator during Lunch Service mode.
MAX INACTIVE	The VP system has been designed to be fault-tolerant. If a hardware or software fault occurs on the system, there is a danger that one or more of the lines could be out of service for an extended period. To prevent a transient problem from locking up the lines, the VP system continually monitors each line. If a line becomes inactive for more than 10 minutes, but is not idle, the VP system makes every effort to release the line, and it reports an error. Use this option if you need to adjust the 10-minute timer.		10 minutes.
MAX LOCKUP	The VP system has been designed to be fault-tolerant. If a hardware or software fault occurs on the system, there is a danger that the PC could lock up. To prevent a transient problem from locking up the lines, the VP system continually monitors its own operations. In the unlikely event that the PC locks up for more than 25 minutes, the VP system makes every effort to re-boot the computer and restart itself. Use this option if you need to adjust the 25-minute timer.		25 minutes.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
MAILBOX SUSPENSION TIMER	This timer was added with software release 11.0, Service Pack 1 and it determines when and how a mailbox is restored to normal operation after a security violation. A security violation occurs after 3 unsucessful log-in attempts. To change the time from the default value, enter "Mailbox Suspension Timer =xx, where xx is the new value, in minutes. A value of 00 in this field will require a manual reset by the system administrator.	0 to 10080 (7 days)	30
MAX PASSWORD LENGTH (Enter this as one line of text in the VM.CFG file.)	Enter MAX PASSWORD LENGTH = *n*, where *n* is the maximum number of digits allowed for an owner's mailbox password.	1 to 10	10 digits.
MAX TTS STREAMS	The VP system key allows a maximum number of concurrent TTS sessions. The default number depends on the number of unified messaging seats the user has purchased. This parameter allows the user to reduce the maximum number of TTS sessions temporarily for troubleshooting purposes. Enter MAX TTS STREAMS = *n*, where *n* is the maximum number of TTS sessions.	0 to 30	
MBOX DEFAULT DIGIT (Enter this as one line of text in the VM.CFG file.)	When the VP system plays a mailbox greeting to a caller, and the field AFTER PLAYING GREETING is set to WAIT FOR DIGIT, the VP system plays the complete greeting, then waits 5 seconds for the caller to enter a digit. If the caller does not enter a digit, the VP system normally takes whatever action is specified in the field AFTER LEAVING MESSAGE. If you include MBOX DEFAULT DIGIT in the VM.CFG file, the VP system processes the call as if the caller pressed that digit. For example, if the VM.CFG file includes the line: MBOX DEFAULT DIGIT = 0 and the caller does not enter a digit, the VP system assumes the caller pressed 0 and tries to route the call to the operator.		10 digits.
MENU.<*menu id*>.<*menu option*> (Enter this as one line of text in the VM.CFG file.)	Every voice menu in the VP system can be configured so that any digit can correspond to any option. To change from the default digit that corresponds to menu item, enter: MENU.<*MENU ID*>.<*MENU OPTION*> = *N* where *n* is the new digit you want to correspond to that option. To disable a menu option, enter **X** as the digit corresponding to the option.		

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
MESSAGE HANDSHAKE (Enter this as one line of text in the VM.CFG file.)	This parameter was designed to be used when a mailbox on one VP system is set up to deliver messages to a mailbox on another VP system. The message delivery number on the originating system is terminated with a 'V' to indicate that the originating system is to automatically begin voicing the message after the entire dial string is dialed. (The dial string specified on the originating system include pauses and characters that not only dial the receiving VP system's telephone number, but reach the recording signal that plays after a personal greeting in the receiving mailbox.) Before the 'V' character, the dial string should also indicate the handshake character specified by this parameter. The character can be any digit (0 – 9), *, #, A, B, C, or D), for example: message handshake = A When a handshake character is included in the dial string, the originating VP system will not begin voicing messages until it receives the same character as a "handshake response" from the receiving VP system.		No handshake digits are sent.
MESSAGE PAUSE TIME	While a mailbox owner is listening to his/her messages, he/she can press 0 to temporarily pause the playback. The VP system pauses for 30 seconds, then automatically continues playing the message. Use this option if you want to change the pause time. For example, if you want the VP system to automatically continue after 60 seconds, enter the following line in the VM.CFG file: MESSAGE PAUSE TIME = 60		30 seconds.
MINIMUM MESSAGE	If you find that the VP system is recording short (1 or 2 second) messages if a caller hangs up without speaking, then you can specify that messages shorter than a particular length can be ignored. For example, entering `MINIMUM MESSAGE = 2` in the VM.CFG file tells the VP system to throw away any messages shorter than 2 seconds.	1 to 900	The VP system keeps *all* messages, irrespective of length.
MONITOR	If you need more detailed information than that supplied in the log file, then you can turn on the Monitor feature. You can also specify which events should be monitored and which should not. The additional information is interspersed among the usual log records. Remember that this extra information makes log files much larger.		Monitor not enabled.
MW OFF REPS	If the host telephone system does not reliably control the message-waiting lamps on the extensions, you can use this option to force the VP system to try more than one time to turn off an extension's message-waiting lamp. For example, if you want the VP system to try 3 times to turn off a message-waiting lamp, insert the following line in the VM.CFG file: MW OFF REPS = 3	1 to 5	Try one time.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
MW ON REPS	If the host telephone system does not reliably control the message-waiting lamps on the extensions, you can use this option to force the VP system to try more than one time to turn on an extension's message-waiting lamp. For example, if you want the VP system to try 3 times to turn on a message-waiting lamp, insert the following line in the VM.CFG file: MW ON REPS = 3	1 to 5	Try one time.
MW PRIORITY	Include this option in the VM.CFG file to indicate the priority assigned to message waiting lamp operation. To set the priority to a medium level, for example, enter the following line in the VM.CFG file: MW PRIORITY = 5 A priority of 9 is the highest. Note that by assigning a higher priority to the message waiting lamp priority, you shift more system resources to this function, which slows the completion of other system tasks. For this reason, it is recommended you assign this function a priority of 3 or less.	1 to 9	1
MW Q SIZE	Include this option in the VM.CFG file to indicate the number of events that can be held in queue waiting for an idle port. Events include commands for the system to turn on or off message waiting lamps. Note that as the queue grows, system response to call processing tasks slows. To allow, for example, 100 events to queue, enter the following line in the VM.CFG file: MW Q SIZE = 100	20 - 1000	50
NO ACCOUNT IN LOG (Enter this as one line of text in the VM.CFG file.)	Version 8.1 of the VP system introduced *account numbers*. These account numbers are stored in the log file. However, if you have software that processes the log files, and you do not want the format of the log files to change, then you enter the following line in the VM.CFG file: NO ACCOUNT IN LOG		The VP system includes the account number in the log file.
NO NAME TRANSFER (Enter this as one line of text in the VM.CFG file.)	On a call transfer, the VP system normally says the called party's name just before it places the caller on hold to transfer the call: "Please hold while I transfer the call to [name]." Use this option if you do not want the VP system to play the called party's name. The VP system says: "Please hold while I transfer the call." You must re-record prompt number 96 to say the above phrase, or substitute the optional pre-recorded version of the above phrase.		The VP system plays the called party's name (or the prompt, *"that extension"* if no name is recorded or the mailbox owner's first name is prefixed with @) before beginning the call transfer.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
NO PC BEEP	This option prevents the VP system from making a beep sound (for example, when reporting an error or when you reach the end of an input field).		The beep is enabled.
NO RECORD BEEP	When the VP system is about to record a message, greeting, etc., it says, *"Please speak after the tone,"* then plays a short tone. Include this option if you want to disable this tone. The tone is disabled for every recording the VP system makes. If you want to disable the tone in response to an in-band packet received from the telephone system, include the sequence ":N" at the end of the rule in the TRANS.TXT file.		6 times.
NO SERIAL MW REFRESH (Enter this as one line of text in the VM.CFG file.)	When the VP system starts up, it refreshes all message waiting lamps via serial link. Add this option to the VM.CFG file to disable this functionality. If there is no serial integration, this option will have no effect.		All message waiting lamps are updated every time the serial link is re-started.
NO VIDEO MEMORY	Include this parameter in the VM.CFG file on systems that do not include computer video memory. (Also see UNITIZED.) This affects DOS-based systems only.		VP system assumes that the PC has video memory.
NOTIFY PRIORITY	While the VP system is not busy handling calls, it performs several low-priority tasks, such as self-checks, display updates, etc. One of these tasks is to scan the mailboxes to see if it is time to notify one (call out to deliver new messages). Since this is a low-priority task, you may see some delay between the time when a mailbox owner is due to be notified and the time when the call is actually made. If you want to minimize these delays, you can boost the priority of this task. The priority value can vary from 1 through 9, with 9 being the highest priority. Do not adjust this value unless you are sure that it is causing a problem. By allocating a higher priority to this task, you are taking processing time away from other tasks.	1 to 9	1.
NOTIFY REPS	When the VP system calls to deliver the messages, it plays a prompt: *"Message for [name]. Press 1 if you would like to hear the messages ...[pause]*." The VP system repeats this prompt until you press 1, or until it has played the prompt a specific number of times. This option allows you to specify how many times the prompt should be repeated.	1 to 9	6 times.
NOTIFY RINGS	When the VP system calls a mailbox owner to deliver new messages, it lets the called telephone ring *n* times before abandoning the call. You can use this parameter to adjust the number of rings. NOTIFY RINGS = *N*	1 to 20	The VP system lets the telephone ring 6 times.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
OFFHOOK DELAY	The VP system defaults to begin accepting digits 500 milliseconds after answering the call. Some telephone systems may begin sending digits before the 500 ms has expired, so the VP system may miss them. If you find that the VP system is missing digits at the beginning of a call, you can lower the 500 ms time to 300 ms, by entering the following line in the VM.CFG file: OFFHOOK DELAY = 300	10 to 1000	500 milliseconds (0.5 seconds). **Note:** The most common causes of the VP system missing digits upon call answer are a mis-set INITIAL PAUSE and a missing or incorrect TRANS.TXT file. Do not adjust this timer until you have eliminated these possibilities as a source of the problem.
OMIT GROUP SENDER (Enter this as one line of text in the VM.CFG file.)	Normally when a mailbox owner sends a message to a Group box and he/she is also a member of that Group box, a copy of the message is sent to his/her box. Use this parameter if you do not want for the sender of a Group box message to receive a copy.		Sender of Group box message receives a copy if a member of that group.
ONHOOK DTMF	This parameter tells the VP system that it should listen for DTMF digits even while it is on-hook. Some telephone systems implement in-band integration by sending DTMF digits at the beginning of the call, before they ring the VP system port. This option requires the use of special hardware (for example, Rhetorex 464 and Dialogic D41E boards). Contact Technical Support if you need further information.		The VP system does not detect DTMF digits until the port is off-hook.
OUTBOUND DELAY	This parameter is for use with the optional Outbound Telemarketing module. When the VP system has finished with an Outbound Telemarketing call, it waits for a few seconds to allow the line time to release (see CLEAR DOWN DELAY). It then pauses for another few seconds before seizing the line to make another telemarketing call. Use the OUTBOUND DELAY parameter to define how long this second pause should be. For example, if you want the VP system to pause for 15 seconds between outbound calls on a specific line, you enter: OUTBOUND DELAY = 15	1 to 10,000	0 seconds.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
PA.BUSY	This parameter specifies the sequence that the VP system is to dial to get back to the caller on hold, if the PA system is busy. The sequence can consist of the digits 0-9, A-D, and the following special characters: **,** Short pause (duration can be changed in TECHNICAL INFORMATION screen (systems) / PBX INFORMATION screen (Windows systems) - default is 1 second). **%** Medium pause (equal in length to 4 commas). **L** Long pause (equal in length to 8 commas). **!** Hook-flash (duration can be changed in TECHNICAL INFORMATION screen (systems) / PBX INFORMATION screen (Windows systems) - default is 1 second). **$** A 4 second on-hook, then proceeds to next step in sequence (duration can be changed using the LONG HOOK-FLASH parameter). **X** Substitute the box number of the Mailbox currently handling the call. **H** Hang up immediately after dialing the sequence. **F** Substitute the number in the TRANSFER TO field of the Mailbox currently handling the call. **Any other character** Can be used for punctuation and are ignored. For example, if the telephone system requires a hook-flash, followed by the code 47 to get back from a busy PA system to the caller, you enter the following line in the VM.CFG file: PA.BUSY = !,47		None.
PA.CANCEL	This parameter specifies the sequence the VP system is to dial to get back to the caller on hold, after the VP system has announced the call over the P.A. system. The sequence can consist of the digits 0-9, A-D, and the special characters listed above, entered as: PA.CANCEL =		None.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
PA.INIT	This parameter specifies the sequence the VP system is to dial to place the caller on hold and call the PA system on the phone system. The sequence can consist of the digits 0-9, A-D, and the special characters listed above, entered as: PA.INIT =		None.
PA.REPEATS	When the VP system calls the PA system, it announces the call. You can control how many times the VP system should repeat the announcement. For example, if you would like the announcement to be repeated 4 times, enter the following line in the VM.CFG file: PA.REPEATS = 4 The PA announcements can be re-recorded using the prompt recording utility.	1 to 10	Announcement repeats 3 times.
PAGER APPEND	This option affects digital pagers only. If the pager service requires any digits to be added to the end of callback numbers (such as #), you can enter: PAGER APPEND = *NNNN* where *n* are the digits added.		Nothing appended to callback number.
PAGER PREFIX	This option affects digital pagers only. If the pager service requires any digits to be added to the beginning of callback numbers, or if you require a pause between the time that the pager service answers and when it is ready to accept digits, you may use this parameter. You may enter any DTMF digit, or **,** (short pause), **%** (medium pause equal to 4 commas) or **L** (long pause equal to 8 commas), entered as: PAGER PREFIX = *NNNN*		No digits are prefixed to callback number. It is sent immediately upon answer by paging service.
PAGER RETRY	The VP system keeps trying to call the pager until it makes the call successfully. If, for instance, the paging service was out-of-order and returning a busy signal or ring-no-answer to the VP system, the call attempts could continue forever. This parameter sets the maximum attempts (*n*) to call a pager before abandoning the process, entered as: PAGER RETRY = *N*		20 attempts.
PAGER TRAIL	This option affects digital pagers only. If the pager service requires a delay after the end of the callback digits, before going onhook, use this option to enter the length of the required delay in seconds: PAGER TRAIL = *N* where *n* is the length of time the VP system should wait before going on-hook.	1 to 30	1 second.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
PAGE TIME	This parameter disables call-progress tone detection on pager calls and uses a timer (*n* - in seconds) to control the call. For tone pagers, the VP system dials the pager number, waits *n* seconds, then disconnects. For digital pagers, the VP system dials the pager number, waits *n* seconds, dials the callback number, then disconnects. Enter: PAGE TIME = *N* **Note:** Since call progression tones are not monitored, the VP system does not detect a busy. This option is effective system-wide. If you want to disable call-progress detection for specific pagers only, use the N character as the last character in the PAGER NUMBER field.	1 to 30	The VP system uses call-progress tones to determine when a paging service has answered.
PLAYBACK DELAY	Some telephone systems, as well as some cellular telephones, have a short period following the pressing of a DTMF digit in which incoming audio transmission is blocked. This can cause the calling party to miss the first few words of a prompt, greeting or message playback. This parameter allows a delay to be introduced following the receipt of a DTMF digit before playback of the audio begins. The entry is: PLAYBACK DELAY = *N* where *n* is the number of seconds of delay desired.	1 to 10	No added delay.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
PMS VIA TEXT FILES	This option allows the VP system to communicate with the PMS via text files (normally, a serial link is used). Each time a guest checks in or changes rooms, the PMS creates a text file, which is read by the VP system. The VP system processes the information in the text file, then deletes the file. To implement, include the following line in the VM.CFG file: PMS VIA TEXT FILES The filename should be in the form CKINnnnn.DAT, where nnnn is a 4-digit sequence number between 0001 and 9999. The file is in ASCII (text) format, with one record per line: line 1: box number *(required*) line 2: password *(leave blank if not required*) line 3: class of service *(leave blank if not required*) line 4: language *(leave blank if not required*) line 5: previous room number *(leave blank if not required*) line 6: guest last name *(leave blank if not required*) For example, if a guest named Smith has just checked in to room 104 and chosen a password of 5432, the file would look like this: 104 5432 Smith The 3 blank lines are for class of service, language, and previous room number.		Use serial link for PMS integration.
POOLED RING	On some telephone systems, there is no hunting feature. When an incoming call is detected, the telephone system rings all the systems ports simultaneously. This causes the VP system to answer all its ports, even though there is only one call. If you want to tell the VP system that this is happening, set the RINGS TO ANSWER field on the LINE INFORMATION screen to 99 for all ports. This tells the VP system to answer on one port, then pause to see if the other ports stop ringing. If they do not, the VP system answers on another port (as there must have been two calls ringing in) and pauses again, etc. If you have problems with this feature, try adjusting the pooled ring time.	1 to 2000	500 ms.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
PULSE CALIBRATION (Enter this as one line of text in the VM.CFG file.)	If you are using the rotary detection capabilities of the Rhetorex 464 or Vantage boards, you need to ask the caller to dial a known digit at the beginning of each call, so that the VP system can calibrate itself to match that specific rotary dial. It is best to use the digit 0 or 9 for calibration. For example, to use the digit 0, you would enter the line: PULSE CALIBRATION = 0 then record the following phrase at the end of the initial greeting: "or if you are calling from a rotary telephone, please dial 0 now." If you are using Dialogic boards, no digit is required.		None.
PULSE SPEED	If you are using the rotary detection capabilities of the Rhetorex 464 or Vantage boards, use this option to tell the VP system whether callers are calling from telephones with 10pps dials, or 20pps dials (North America and Europe almost exclusively use 10pps dials, Japan uses 20pps dials). The options are: `PULSE SPEED = 10` *or* `PULSE SPEED = 20` *or* `PULSE SPEED = BOTH`		10pps.
QBOX ARCHIVE	If you want the VP system to create a new data file each day for the data-entry Question boxes, then include this option in the VM.CFG file. At midnight each night, the VP system moves the current data files into an archive directory called DATA\ARCHIVE. Each file is named to reflect the date and the Question box(es) with which it is associated.		Do not archive. Keep adding to the same data files every day.
QBOX DATA PATH	This option lets you choose the directory where you want the VP system to store its data files. This could be on a shared drive (for example, a network server), allowing another program to access the data collected by the VP system. Enter as: QBOX DATA PATH = <DRIVE> \ <DIRECTORY>		Data files are stored in a DATA directory under the current directory.
QBOX DATA PRINT	This option is used in conjunction with the Question box data entry feature. Using this option, you can instruct the VP system to print the data collected at the end of each call. The data is sent to a printer connected to LPT1.		Do not print the data.
QBOX DATA PRINT EJECT (Enter this as one line of text in the VM.CFG file.)	This option is used in conjunction with the Question box data entry feature. If you are printing the collected data to a single-sheet feed printer (such as a laser printer), you may configure the VP system to use one page for each record by entering the parameter as QBOX DATA PRINT EJECT		Do not send a page-feed to the printer.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
QBOX HIDE ACCT NUMBERS (Enter this as one line of text in the VM.CFG file.)	If you are using a Question box as a data entry device, the VP system stores the account number in the data file. However, if you have software that processes the data files, and you do not want the format of the data files to change, then you should enter the following line in the VM.CFG file: QBOX HIDE ACCT NUMBERS		The VP system includes the account number in the data file.
QBOX POS CONFIRM	This option is used in conjunction with the Question box data entry feature. If you set up a Question box to repeat entered digits back to the caller and request confirmation, this option lets the VP system know what to do if the caller does *not* respond when the VP system says, *"If this is correct, press 1."* If you do not include this option, the VP system accepts the digits anyway. If you include the option, the VP system *discards* the digits and moves on to the next question if the caller does not respond by pressing 1.		Accept data even if caller does not respond when asked for confirmation.
QBOX USE CONFIRM NUMBERS (Enter this as one line of text in the VM.CFG file.)	This option is used in conjunction with the Question box data entry feature. If you include this option in the VM.CFG file, the VP system issues a 4-digit confirmation number to each caller who uses the Question box. The confirmation number is stored as part of the data file.		Do not issue confirmation numbers.
REMAIN OFFHOOK	This parameter is for use only with those D.I.D. conversion units that operate in the "pass-through" mode. Units using the "digit store and forward" method, which converts D.I.D. signaling to loop signaling, do *not* require this parameter. The command is entered as: REMAIN OFFHOOK = *X*, *Y* where *x* is the VP system port number and *y* is the number of seconds that port is to remain on-hook at the termination of a call. At the expiration of the time *y* the An entry such as the one shown above is required for <u>each</u> VP system port connected to a D.I.D. line. Other ports (if equipped) operate normally. For example, if you had a 2-line system and the VP system had to remain on-hook for 3 seconds at the end of a call, you would enter: `REMAIN OFFHOOK = 1,3` `REMAIN OFFHOOK = 2,3`port again goes off-hook, ready to accept digits from the next call.		Do not remain off-hook.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
REMOTE PAUSE	When remotely changing the pager/notification/transfer number, you can insert a pause in the number to be dialed by entering three stars (***). The default is for the VP system to replace these three stars with a single comma (defined by PAUSE LENGTH on the TECHNICAL INFORMATION screen (systems) / PBX INFORMATION screen (Windows systems)). However, you can use the REMOTE PAUSE option to specify that a remotely programmed pause should be of greater length. For example, if you enter the line: REMOTE PAUSE = 4 then the VP system replaces the 3 stars with 4 commas.	1 to 10	The VP system replaces the 3 stars with 1 comma.
REPEAT MW	The VP system normally only attempts to turn on message waiting lamps when the number of new messages in a mailbox goes from zero to one (when subsequent new messages arrive, the VP system assumes that the lamp is already on). When a mailbox owner exits from his/her mailbox after listening to messages, the VP system only attempts to turn off the message waiting lamp if there was at least one new message in the box when it was opened. You can use the REPEATMW statement to indicate to the VP system that it should attempt to turn on the lamp *every* time a new message arrives and should attempt to turn off the lamp *every* time an owner exits from a mailbox, leaving no new messages. Use this parameter *only* if absolutely necessary for the telephone system, as its use may greatly increase the VP system processing time and line usage.	0 to 2	The VP system turns on message waiting lamps only when the number of new messages goes from zero to one. The VP system turns off the message waiting lamps only when a mailbox owner exits from his/her box and the number of new messages goes from non-zero to zero.
RESPONSE TIME	The time (in seconds) a caller is given to respond to a system prompt (for example, *"If this is correct, press 1"*). RESPONSE TIME = *N*	1 to 9	5 seconds.
RETRY FAX ALWAYS	This option is available only if the Faxoptional is installed. Under normal fax retry circumstances, the VP system will re-send fax documents to fax machines only if the system detects a busy or ring-no-answer condition at the fax machine. When this parameter is added to the VM.CFG file the VP system re-sends fax documents to fax machines until it receives confirmation from the receiving fax machine that the transmission was successful.		Disabled (retry transmissions only under busy or no-answer conditions).

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
REW DIGIT	While the VP system is playing a Routing box greeting, the caller can skip forwards 5 seconds, or backwards 5 seconds by using the FF DIGIT (fast-forward) or REW DIGIT (rewind). To use the REW digit, the following conditions must be met: The REW digit must be defined in the VM.CFG file. The DESTINATION FOR DIGIT field in that particular Routing box must be blank.		No REW digit defined.
RING ON	The VP system recognizes an incoming call by the ring voltage presented at the voice board port. If the telephone system has a non-standard ring cycle consisting of short bursts of ring voltage, the voice board may not recognize the call, or may not answer on the proper number of rings as programmed on the LINE INFORMATION screen. If necessary, use this parameter to adjust the ring cycle ON time to match that of the telephone system. Enter the time (*n*, in milliseconds) of the ON portion of the ring cycle: RING ON = *N*	1 to 5000	300 ms (3/10 of a second).
RING RESET	This parameter should *only* be used if the field RINGS TO ANSWER on the LINE INFORMATION screen is greater than 1. When the VP system is counting rings, it measures the time separating each ring. If this time exceeds a certain threshold, then the VP system assumes that a call has been abandoned and a new one has started ringing. You can use this parameter to change the value of the threshold. The time should be entered in milliseconds. For example, if you want the VP system to reset its ring-counter after a 5-second gap between rings, enter: RING RESET = 5000	1 to 15000	8000 (8 seconds).
SAME CALL FAX OK	This parameter is used only if the Fax option is installed. It tells the VP system how to perform same-call faxing. If you are using the Puredata Satisfaxion driver, or if you are unsure which driver you are using, then do *not* include this option in the VM.CFG file. If you are using the Instantcom driver, then you *should* insert this option in the VM.CFG file.		This option is not included.

<table>
<tr><th>Configuration File Entry (Continued)</th><th>Description</th><th>Minimum Value to Maximum Value</th><th>Default Setup</th></tr>
<tr><td>SAMPLING RATE</td><td>Indicates to the VP system which sampling rate it should use when recording and playing speech files. Note that files recorded at a particular sampling rate must be played back at the same rate. This means that if you have existing messages and prompts, you have to discard them if you change the sampling rate. Also note the disk space storage requirements for each sampling rate. As you increase the rate, the amount of disk space required to store the voice files increases.

Refer to the following tables:

Sampling Rate Values for Rhetorex Voice Boards

<table>
<tr><th>Rate Index in VM.CFG</th><th>Rate (kbit/s)</th><th>Disk Space Req. (Mbytes/hr)</th></tr>
<tr><td>0</td><td>32</td><td>15</td></tr>
<tr><td>1</td><td>32</td><td>15</td></tr>
<tr><td>2</td><td>24</td><td>11</td></tr>
<tr><td>3</td><td>64</td><td>30</td></tr>
<tr><td>4</td><td>128</td><td>60</td></tr>
</table>
Default: 32 kbit/s (index = 0 in above table).

Sampling Rate Values for Dialogic Voice Boards

<table>
<tr><th>Rate Index in VM.CFG</th><th>Rate (KHz)</th><th>Bits/ Sample</th><th>Disk Space Mb/hr</th></tr>
<tr><td>0</td><td>6</td><td>4</td><td>11</td></tr>
<tr><td>1</td><td>8</td><td>4</td><td>15</td></tr>
<tr><td>2</td><td>6</td><td>8</td><td>22</td></tr>
<tr><td>3</td><td>8</td><td>8</td><td>30</td></tr>
</table>
Default: 6 KHz at 4 bits per sample (index=0 in table above).</td><td></td><td>See description at left.</td></tr>
</table>

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
SAVE TRACE	Windows-based systems only. By default, when the diagnostic trace utility is running, the TRACE.LOG file is kept open, and trace entries are written to it. The trace file is closed only when the diagnostic trace utility is turned off. When the trace file runs continuously, it may not close properly if the system locks up or experiences power loss unexpectedly, and therefore, all trace information may be lost. The Save Trace parameter instructs the VP system to keep the TRACE.LOG file closed while running the diagnostic trace utility and to open the file only long enough to write entries to it. Running the trace utility this way is less efficient and can slow the system slightly, but it is a more secure way of logging trace data		None.
SCREEN SAVER	DOS-based systems only. After a pre-defined period of keyboard inactivity, the VP system automatically blanks the monitor screen of the computer to prevent image burn-in. Pressing any key on the keyboard causes the display to reappear. The parameter is entered as: SCREEN SAVER = *N* where *n* is the number of minutes of inactivity before blanking occurs. Permitted values are: 0 - Screen saver disabled 1 - 120 minutes	1 to 120	10 minutes.
SEND DISCONNECT	A call to the VP system can be terminated by either the calling party (by hanging up), or by the VP system (if the caller does not enter any digits and a Routing box is set to *Say goodbye* if no digits are dialed). In the case where the VP system terminates a call, supervision is returned to the host telephone system in the form of an on-hook condition. Some telephone systems, usually in a service bureau environment, require DTMF digits be sent to indicate that the VP system is about to terminate a call. This parameter is used to assign these digits. The command is entered as: SEND DISCONNECT = *NNNN* where *nnnn* is from 1 to 32 DTMF digits (0-9, *, #, A-D). The VP system sends the digits just prior to going on-hook.		None.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
SERIAL DISCONNECT DELAY (Enter this as one line of text in the VM.CFG file.)	Include this parameter in the VM.CFG file to define the serial disconnect delay. Enter as: SERIAL DISCONNECT DELAY = X Where x is the delay in seconds. Some PBXs send a message over the serial link when the caller has disconnected, so the VP system can free its port. This parameter tells the VP system to wait for a specified time after it receives the disconnect notification, before disconnecting a call. Do not change this parameter unless instructed to do so be Technical Support.	1 to 10	1
SERVICE OBSERVE CODE (Enter this as one line of text in the VM.CFG file.)	Include this option on systems with Comdial integrations to activate the record conversation feature for a certain port on a Comdial phone system. Enter as: SERVICE OBSERVE CODE = #03X Where #03X is the code the VP system needs to dial to initiate the Service Observing feature on the extension who requested that his/her call is to be recorded.	Digits 0-9 plus * and #.	No digits
SHARE FAX PORTS	If a caller requests a fax to be sent during the current call, but there is no fax attached to the line being used, the VP system can automatically transfer the call over to a line that is connected to a fax. To enable this feature, you must enter the following line in the VM.CFG file: SHARE FAX PORTS This tells the VP system to use the call-transfer feature on the telephone system to transfer the call to a port that has a fax board connected. The VP system supervises the transfer, to make sure the fax-enabled port answers. If the phone system does not allow supervised transfers from one voice mail port to another, you can use the option: SHARE FAX PORTS = BLIND **Note:** If possible, always use the SUPERVISED option. Use the BLIND option *only* if the SUPERVISED option does not work on the telephone system.		None.
SMDI ANSWER FIRST	This option is used in conjunction with the serial link integration feature. If the host telephone system requires that the VP system answers before it sends the data packet (typically older software on Ericsson switches), include this option in the VM.CFG file. **Note:** If you include this option, it must come after the HOST option (see the HOST parameter).		The VP system does not answer until it has received a packet from the host telephone system.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
SPECIAL ANS DIGIT	While the VP system is monitoring for call progress tones, this option identifies additional digits that the PBX may send and that the VP system should interpret as an answer. For example, to specify digit 2 as a special answer digit, include this option in the VM.CFG file: SPECIAL ANS DIGIT = 2	0 to 9, *, #, A, B, C, D	None.
T1 PORT	This option is for use with Dialogic boards only. It tells the VP system that the specified port is connected via a T1 interface. For example, if the system has 4 ports, all connected to Dialogic T1 hardware, you enter the following lines in the VM.CFG file: T1 PORT = 1,DTIB1 T1 PORT = 25,DTIB2 T1 PORT = 49,DTIB3 T1 PORT = 73,DTIB4		The VP system assumes that all ports are *not* T1 ports.
TCNAME	This parameter requires the optional Talking Classifieds software. Enter this parameter to request the name of a caller to the Talking Classifieds Gateway box.	0 to 1	Caller's name is not requested.
TDD AUTO	This option tells the VP system that it needs to provide TDD support. It assigns the value 8 to the TDD DIGIT (see below) and causes a TDD prompt to be played immediately after the initial greeting.		No TDD support.
TDD DIGIT	This digit causes the VP system to switch to another language in the middle of a call. It is typically used to allow the caller to switch from voice prompts to TDD tone prompts. If a caller presses this digit while the VP system is playing a Routing box greeting, the VP system switches to the next language and begins playing the greeting again. You may use any DTMF digit. Enter as: TDD DIGIT = *N* You do not need to use this option if you use TDD AUTO (see above).		No TDD digit assigned.
TONE	You can configure the VP system to automatically transfer incoming data calls to an extension connected to a fax machine or modem, provided that the calling device is capable of initiating the modem tone first. Enter: TONE = *X, Y* Where *x* is the PCPM code of the tone and *y* is the box number of the receiving device.	16 to 31	None.
TRANS BYPASS	The default digit used with the transfer-bypass feature is star (*). If you need to use a different digit, enter: TRANS BYPASS = *N* Where *n* is any digit 0 - 9, star (*) or pound (#). Note that changing this from the default may cause conflicts in the system dialing plan.		The * key.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
TRANSFER RING	When listening to the ring back tone during a call transfer, Dialogic boards us a timer rather than counting the rings. By default, the boards interpret 1 ring cycle as 4 seconds. Modify this default using the TRANSFER RING option. For example, to set the system so 1 ring cycle is interpreted as 3 seconds, add the following line to the VM.CFG file: TRANSFER RING = 3	1 to 9	The VP system interprets 1 ring cycle as 4 seconds.
TTS BUFFER SIZE	On Windows-based systems only. This option alters the number of characters read by the e-mail reader when voicing a message. Enter as TTSBUFFERSIZE = N Where *n* is any digit 512 to 4096. **Note:** Adjust this parameter only under the direction of Technical Support.	512 to 4096	1024
TUTORIAL REPS	By default, the first time a user logs in to a mailbox, the VP system plays a tutorial. The VP system plays the tutorial every subsequent time the subscriber logs into the mailbox, until he/she cancels the tutorial by pressing the * key or until the maximum specified by this parameter is reached. This option identifies the number of times the VP system plays the tutorial upon login. For example, to indicate the VP system is to play the tutorial upon the first 3 mailbox logins, add the following line to the VM.CFG file: TUTORIAL REPS=3	0 to 255	255 (meaning the VP system will *always* play the tutorial, until the user cancels it).
UM NAME=TCP, <Network Port><VP system PC IP Address>, (Enter this as one line of text in the VM.CFG file.)	On Windows-based systems only. This parameter enables the unified messaging feature. Do not modify this parameter unless instructed to do so by technical support.		
UNITIZED	Include this parameter in the VM.CFG file on systems that do not include computer video memory. (Also see NO VIDEO MEMORY.) Note: This parameter affects DOS systems only.		Not unitized.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
USE ENTERPRISE	This parameter is entered automatically when Enhanced Customer Service is enabled. The default for this parameter is: Use enterprise=2,9600 Where *2* is the COM port and *9600* is the baud rate. Enhanced Customer Service requires a serial connection from the serial card in the phone system to the VP system. If no serial connection is present when Enhanced Customer Service is selected during installation or upgrade or if the COM port or baud rate is not identified correctly, the LCD buttons on the phone extensions may not update correctly.		2, 9600
USE L&H TTS	Must be included on net new systems version 10.2 and higher and on upgrades of systems that did not previously have TTS capabilities. Should not be specified on upgrades for systems that already have TTS capabilities.		
USE LCD MENUS	Include this option on systems with Comdial integrations to allow serial integration to send messages to Comdial telephone LCD displays.		Disabled (the VP system does not display menu options on LCD of telephone).
USE PRINTER	On Windows-based systems only. This option tells Windows-based systems to print data collected by Question boxes to a printer according to the current printer driver configuration set up on the VP system PC. When this option is used in conjunction with FAST NOTIFICATION, the VP system writes message delivery notification information to the printer.		Printer not used.
VCM ANSWER DELAY (Enter this as one line of text in the VM.CFG file.)	On Windows-based systems only. This option is used in conjunction with the VCM feature. If the VP system needs to use a line to play messages to a VCM user, it calls the VCM user's extension number and waits for it to answer. Once the VP system detects the VCM user has answered, it begins playing the message. If you do not want the VP system to monitor for an answer, you can tell it to dial the extension number, then assume that it has been answered after a short delay. For example, if you enter the following line in the VM.CFG file: VCM ANSWER DELAY = 3 The VP system dials the extension number, waits 3 seconds, then begins playing the message, as if the telephone had been answered.	1 to 10	Monitor the line to determine when the extension has answered.

Configuration File Entry (Continued)	Description	Minimum Value to Maximum Value	Default Setup
VCM CHANNEL TIMEOUT (Enter this as one line of text in the VM.CFG file.)	On Windows-based systems only. This option is used in conjunction with the VCM feature. If the VP system is using a line to play messages to a VCM user, it continually monitors the line. If there has been no activity on the line for *n* minutes, the VP system releases the line. Use this option to specify how long the VP system should wait before releasing the line. For example, to tell the VP system to release the line after 3 minutes, you would enter: VCM CHANNEL TIMEOUT = 3	0 to 9999	5 minutes.
VCM LINE GROUP	On Windows-based systems only. This option is used in conjunction with the VCM feature. If the VP system needs to use a line to play messages to a VCM user, it hunts for any free line. If you want to restrict the VP system to using only certain lines, place these lines in a line group and use this option to specify the line group. For example, to tell the VP system to only use lines in line group C, you enter: VCM LINE GROUP = C		The VP system chooses any free line. The VP system does not attempt to connect itself to the Local Area Network.
VCM Name=TCPIP	On Windows-based systems only. This parameter enables the VCM feature. Do not modify this parameter unless instructed to do so by technical support. **Note:** This parameter must be present for the unified messaging feature to function.		
WAKEUP RINGS	When the VP system makes a wake-up call, it lets the telephone ring 10 times before disconnecting. You can use this option to tell the system to disconnect after fewer or more rings. For example, if you want the VP system to disconnect after 6 rings, add the following line to the VM.CFG file: WAKEUP RINGS = 6	1 to 20	The VP system gives up after 10 rings.
VOLUME	This parameter controls the volume used by the VP system to voice prompts through the telephone handset. The higher the number specified, the louder the volume. For example, specify a volume of –2 as as: VOLUME = -2	-4 to 8	-1
XFER NAME TIME	If you have configured the VP system to ask the caller for his/her name before performing a transfer, the VP system says, *"Please speak your name so I may announce who is calling"* and allows the caller 4 seconds to record his/her name. Use the XFER NAME TIME statement if you want to change the amount of time allowed to record the name.	1 to 999	4 seconds.

13. DETECTING CALL-PROGRESS TONES

When the VP system is performing a call transfer or placing an outgoing call, it must listen to the line to determine whether the line is busy, is ringing, or has been answered. There are also times when the VP system must detect tones that indicate a caller has disconnected. On many occasions the default tone detection files provided with the VP system sufficiently allow the system to detect these call-progress tones, especially if the telephone system uses industry standard (Bell) tones. If the key system or PBX uses non-standard tones, however, you must train the VP system to recognize the tones provided by the telephone system.

You train the VP system to recognize the tones by running a call analysis program. The program you run depends on whether the VP system is using Dialogic or Rhetorex voice boards.

13.1 Using Accucall for Rhetorex Boards in DOS-based Systems

The Accucall program teaches the Rhetorex voice board the unique ringing and busy tones of the telephone system. Before running the Accucall program verify:

- Rhetorex voice boards are connected to standard, 2500-type telephone lines, and they "hear" only what you hear when monitoring the line or performing the same function manually. Make a list of all of the call-progress tones generated by the telephone system and note under what circumstances each tone is received.
- The cadence of the actual ringing of a telephone set is *not* to be the same cadence as the ring-back tone that is heard by the calling party (in this case the Rhetorex board).
- You understand any unique tones provided by the telephone system. The three most used tones are ring-back, busy, and re-order (fast busy), but the system may have other unique tones such as do-not-disturb tones. It is important to know the available tones, since you do not want to set up the system so, for example, a caller is queued for an extension set to the do-not-disturb state.

13.1.1 RUNNING THE ACCUCALL UTILITY

To use Accucall you must complete the following phases:

- Starting Accucall.
- Completing the SETUP screen.
- Completing the AUTO RUN screen.
- Completing Accucall tests.
- Completing the EDIT TONES screen.
- Completing the FILTERS screen.
- Completing the RUN screen.
- Saving the Accucall tones to a file.
- Adjusting the Rhetorex Configure file.

13.1.2 STARTING ACCUCALL

If the VP system has not been loaded or is not currently running, from the \VM directory, type RHETDRV then press <Enter>. This command loads the software into the Rhetorex voice board driver. If the driver software has previously been installed, you get the message:

RDSP DRIVER PREVIOUSLY LOADED AT INTERRUPT - xx

If the VP system is currently running, exit to DOS by pressing <Esc> from the LINE STATUS screen (you do not need to load RHETDRV).

Type `Accucall` then press <Enter>. The Accucall program loads and the MAIN MENU screen displays.

From the MAIN MENU screen, press <F5> to go to the SETUP screen.

13.1.3 COMPLETING THE SETUP SCREEN

Most of the default settings on the SETUP screen are sufficient for a majority of VP system installations. Do not make any changes to the screen unless you are instructed to by technical support. If you are to change a parameter, use the up arrow and down arrow keys to highlight the parameter, then make the necessary change. Use the spacebar to toggle entries that do not require keyboard input.

Information provided below identifies the fields listed in the RUN / AUTO RUN PARAMETERS area, which is the area in which you are most likely to make changes. To save any changes you make and exit this screen, press <F7>, then press <F6> to move to the AUTO RUN screen.

Setup Screen Field Descriptions

Hardware Interrupt

This field indicates the path through which the voice board and the computer communicate. Normally, VP system voice boards are installed at IRQ 5. If another interrupt is being used for the boards, you must indicate the change in the VM.CFG file using the parameter HARDWARE INT. When the Rhetorex board driver loads, the IRQ is read from the VM.CFG file and the interrupt appears in this field (see section 12 for information on the VM.CFG file).

Outdial Channel Number

This field indicates the port number that is to be used to place test calls. The default is port 1. You should have a 2500-type line from the telephone system connected to this port.

Auto Run Verification Count

The most common approach used to sample the telephone system's call-progress tones is the AUTO RUN sequence, which is explained below. This field indicates the number of test runs Accucall is to execute during AUTO RUN. You may leave the default of 1 on this screen. If necessary, you can modify it on the AUTO RUN screen.

Auto Run Minimum Cycles

This field indicates the minimum number of cycles of the tone being sampled that should be detected during the test run. This parameter works in conjunction with the AUTO RUN VERIFICATION COUNT field explained above. For example, if you choose the default 10 for this parameter and you choose 2 for the Auto Run Verification Count, the compete test sample of a tone will consist of two test runs with ten cycles of the tone in each run.

You may leave this parameter at the default of 10 If necessary, you can modify it on the AUTO RUN screen.

Auto Run Align Frequencies

By retaining the default setting of this field, YES, frequencies detected during the AUTO RUN test are automatically placed in the UNDEFINED TONE FREQUENCIES fields in the FILTERS screen. This screen is discussed later in this section.

Auto Run Quick Frequency Scan

In most cases, leave this field at the default, NO. Some telephone systems, however, do not allow you to sample 10 complete cycles of a particular tone before the tone stops or changes to another tone. If this is the case with the system with which you are working, manually count the number of cycles of the tone you hear and adjust the MINIMUM CYCLES count in the AUTO RUN screen before adjusting this field. If you are still unable to capture a sufficient sample of the tone, set this field to YES.

Log Results To Disk

To save Accucall test data to a log file on the hard disk drive for future reference, set this field to YES.

Use Internal Speaker

A YES entry in this field causes the computer's speaker to "beep" in time with the cadence of the tone being tested. The default is YES.

Phone Number

This field indicates the telephone number to be dialed for test calls. Do not enter the number in this field, as you will enter it on the AUTO RUN screen. Leave this field blank.

13.1.4 COMPLETING THE AUTO RUN SCREEN

Once you set up the AUTO RUN screen, you use it to make test calls that sample each call-progress tone issued by the phone system.

On the AUTO RUN screen, the only fields you may need to adjust are those in the PARAMETERS area. Information in the CADENCE DETECTED and the FREQUENCIES DETECTED areas is automatically entered as a result of the test run(s).

Auto Run Screen Field Descriptions

Phone Number

This field indicates the telephone number to be dialed to receive the tone being tested (for example, the number of a telephone known to be in the "busy" state). Enter the phone number, run the test as discussed below, then adjust either the phone number in this field or the state of the phone, before conducting the next tone test.

Verification Count

This field indicates the number of times the test is to be run. Usually 1 is sufficient.

Minimum Cycles

This field indicates the minimum number of cycles of tone being sampled that should be detected during the test run. This parameter works in conjunction with the AUTO RUN VERIFICATION COUNT field explained above. For example, if you choose the default of 10 for this parameter and you choose 2 for the Auto Run Verification Count, the compete test sample of a tone consists of 2 test runs with 10 cycles of the tone in each run.

Normally, you leave this field at the default of 10, unless the telephone system does not allow a particular tone to repeat 10 cycles before changing or stopping. It is best to manually check all of the tones you will be sampling with Accucall and note any that repeat less than 10 cycles. If required, reduce the number of cycles in this field or set the AUTO RUN QUICK FREQUENCY SCAN field to YES on the SETUP screen.

Frequency Range

This field's default value FULL detects frequencies within a range of 300 Hz to 1700 Hz. If a tone has an extremely short cycle, you need to change this entry to HIGH, which limits the frequencies detected to a higher range (800 to 1700 Hz), and therefore requires less time to capture.

13.1.5 CONDUCTING ACCUCALL TESTS

To start the Accucall test, press <F9> from the AUTO RUN screen. The order in which you test the various tones (ringing, busy etc.) does not matter. For explanation purposes, assume you are testing busy tone and you have entered a phone number that the Rhetorex board can dial to receive this tone.

When the Rhetorex board dials the number and the busy tone begins, you see a vertical bar chart generated from the bottom of the CADENCE DETECTED area of the AUTO RUN screen. The light and dark areas of the chart represent the ON and OFF portions of the cycles. Note that the time elements of the cycles are being measured in milliseconds ($1/1000^{th}$ of a second), so it is normal to have slight variations between cycles.

Best performance characteristics are achieved when these variations are small (± 50 ms). Accucall automatically calculates an average time period for the ON and OFF portions of the cycle, but if the variations between cycles are too large, this average may not function in practical application. Make notes of the ON and OFF times that appear in the CADENCE DETECTED section of the screen at the end of the test (usually the last 5 or 6 cycles remain in view) to compare the values with the average that Accucall calculates. These averages appear on the next screen.

If you note wide variations in the test sampling of a particular tone and unreliable VP system operation when the tone is involved in call progress, you may need to replace the tone generating circuit board in the telephone system.

You may repeat each test as many times as you like until you are satisfied with the results. Each time you repeat the test, the results overwrite any previous results.

When you are satisfied with the results of the test sampling of the current tone, press the <F8> to add the tone to the tone table and proceed to the next screen, EDIT TONES.

13.1.6 COMPLETING THE EDIT TONES SCREEN

The EDIT TONES screen allows you to name the tone you have just sampled in the previous step, plus customize components of the tone. Fields on the screen is discussed below. When you have completed the EDIT TONES screen for the tone being tested, press <F8>. If this is the first time you have edited this tone, the message TONE DOES NOT EXIST. PRESS <F8> TO ADD. displays. Press <F8> again, and the tone is saved.

If you have previously edited this same tone, the message TONE EXISTS - PRESS F7 TO REPLACE displays. Press <F7> to overwrite the previous entry with the new data.

Repeat the AUTO RUN and EDIT TONES sequence for each tone in the system that you are testing. When you finish, press the <F10> then <F10> to return to the MAIN MENU screen.

Edit Tones Screen Field Descriptions

Name

This field indicates a name for this tone. Enter a name that is descriptive, and include the name of the telephone equipment (for example ACME busy tone). You may use up to 27 characters, including spaces.

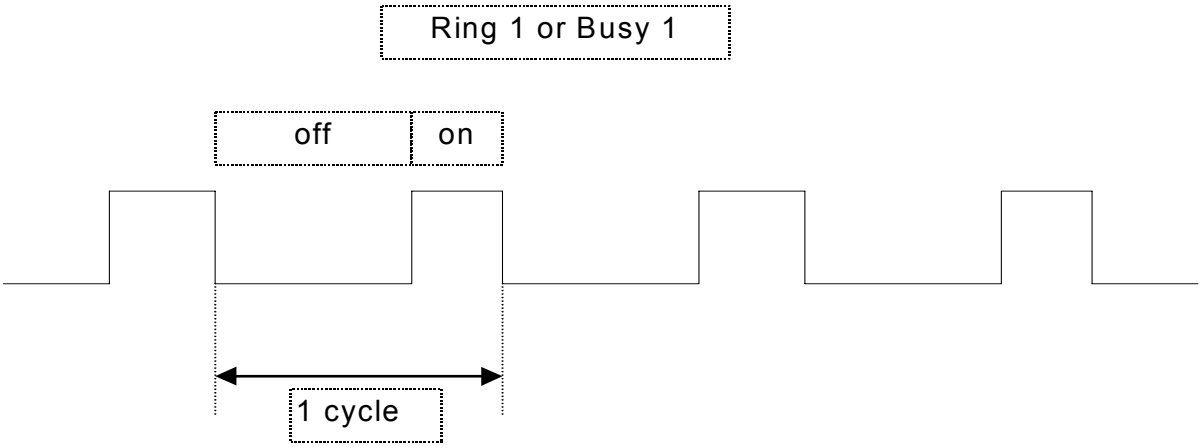
Type

These fields indicate the category of the tone under test. The choices are:

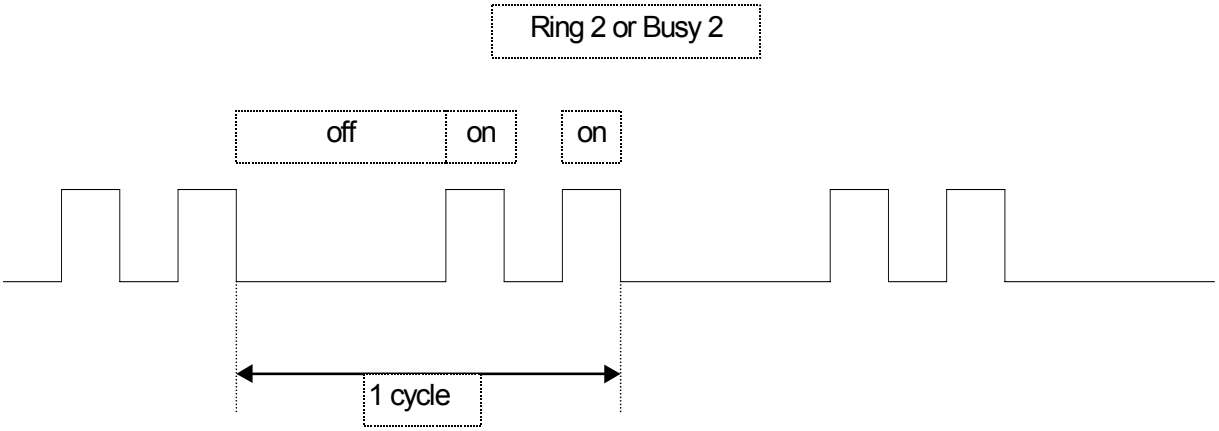
- ring1
- ring2
- busy1
- busy2
- other

These are only categories, not names as explained above. Accucall can learn up to 12 tones, but you can have multiple tones that fall into the above categories (for example, you can have 3 tones that are all Ring1 types).

The Ring1 and Busy1 tones are typical North American-type tones with a single ON and OFF period per cycle as shown below:



The Ring2 and Busy2 tones are European-type tones, which have two ON times per cycle with 1 short and 1 long OFF time per cycle, as shown below:



Accucall usually chooses the correct TYPE, but you should verify its choice and make a change if necessary. Highlight the TYPE field and use the spacebar to toggle the choices.

Terminating

When you describe a tone as TERMINATING (by entering YES in this field), each time this tone is detected by the Rhetorex board during a record or play cycle, an event code (31) is sent to the VP system, which then terminates the call. However, this code is not sent during call transfers or when the system is originating an outgoing call. For instance, if a busy tone is detected during call transfer, the VP system takes whatever action you selected for the call transfer process for the particular mailbox (for example, cancel the transfer and offer the caller the opportunity to hold, etc.). Even though you designate busy tone as TERMINATING, the VP system does not disconnect either party, it simply cancels the transfer.

There are occasions when the VP system acts upon terminating information and disconnects the line. This occurs when the VP system is playing a system prompt or recording a message in a mailbox. If any tone you have marked as TERMINATING is detected during this part of a call, the line is disconnected immediately.

> **Note**: In most cases, you should mark all tones that might be heard when a caller has disconnected as TERMINATING. This is usually busy and fast busy tones from the telephone system and sometimes re-order tone from the public telephone network.

The *frequency* of TERMINATING tones and the placement of their associated filters in the FILTERS screen table is important. Call-progress tones have two components: CADENCE and FREQUENCY. Cadence is the timing component of a tone, and is usually expressed as Impulses Per Minute (IPM). For example, on the public network (Bell-standard) tones are 60 IPM for busy tone and 120 IPM for re-order tone.

The FREQUENCY component(s) of a tone is the number of cycles per second of sound produced by the tone during any ON period. Most call-progress tones have one or two frequency components, expressed as Hertz (Hz). Public network busy tones have frequency components 480 Hz and 620 Hz.

Cadence

When this field is set to the default value of NO, the Rhetorex board examines both the FREQUENCY and CADENCE of the tone to identify the tone. By changing the value in this field to YES, the Rhetorex board examines the tone only for cadence and ignores the frequency component of the tone.

As explained in more detail below, the Rhetorex board has some limitations in detecting frequencies that are separated by less than 40 Hz. There may be occasions when you need to use YES for the CADENCE parameter to ignore the frequency. However, for any tone that you have designated as TERMINATING, you must set this parameter to NO.

Frequency

During the AUTO RUN sequence, the Rhetorex board examines the tone being sampled for its frequency component(s), and it displays the frequency or frequencies detected in the EDIT TONES screen. If the Rhetorex board is unable to determine a tone's frequency components, the word NONE appears in this field and you must select YES for CADENCE as explained in the above step.

Below you are prompted to enter all of the frequencies detected during all of the test sequences in a FILTER TABLE. You can enter a maximum of 12 frequencies in the table, and there must be at least a 40 Hz difference between entries.

To accommodate these limitations, it will probably be necessary to do some "rounding off" of the frequency values detected during AUTO RUN. In the following example, the tones of the public network (Bell Standard) as shown:

Tone	Frequencies	Cadence
Station Busy	480 Hz and 620 Hz	500 ms ON / 500 ms OFF (60 IPM)
Trunk Busy (re-order)	480 Hz and 620 Hz	250 ms ON / 250 ms OFF (120 IPM)
Ring-back (ringing)	440 Hz and 480 Hz	2 sec ON / 4 sec OFF (30 IPM)

> **Note:** The same frequencies are used in more than one tone type. It is not necessary to enter a frequency more than once in the Filters table. Therefore, even though 480 Hz is used in each of the above three tones, it is entered only once in the Filters table

Assume you have performed the AUTO RUN sequence for each of these 3 tones, and you have discovered that the actual measurements of the frequencies vary slightly from the standard:

Busy Tone

FREQUENCY 1=476 HZ

FREQUENCY 2=621 Hz

Re-Order Tone

FREQUENCY 1=482 HZ

FREQUENCY 2=624 HZ

Ringing Tone

FREQUENCY 1=443 HZ

FREQUENCY 2=479 HZ

Before these tones can be entered into the FILTERS table, you must edit them in the EDIT TONES screen. The purpose of the editing is two-fold: Round off values so frequencies that should be the same are the same, and insure that all frequencies are at least 40 Hz apart. In the example shown above, you would need to change the values 476 Hz, 482 Hz and 479 Hz to all be 480 Hz, and change 621 Hz and 624 Hz to both be 620 Hz, etc.

In this example, the standard values were known, which makes the necessary adjustments easier to determine. If you do not know the standard values of frequencies you are editing, adjust each component one-half of the difference rather than changing the value of just one component frequency. For example, assume that AUTO RUN detected the following frequencies in the system's busy signal:

BUSY TONE

FREQUENCY 1=502 Hz

FREQUENCY 2=534 Hz

The difference between these two frequencies is only 32 Hz, so you must edit them to be 40 Hz apart. This is an 8 Hz difference, so modify 502 Hz to 498 Hz, and 534 Hz to 538 Hz (538 - 498 = 40).

PCPM Code

This field identifies the numeric identifier for the tone (the Programmed Call Progress Monitor). The Rhetorex board is the system component that is "listening" to call-progress tones, and only these numeric identifier codes are sent to the VP system software (along with event code 31 for tones marked as TERMINATING). The codes generally used by the VP system include:

TABLE 1.

Code 1	Dial Tone
Code 7	Busy
Code 8	Ringing
Code 9	No tone
Code 10	Voice (call is answered
Code 11	Re-order (fast busy) tone
Code 250	Disconnect immediately
Code 252	Do not disturb
Code 253	PA busy
Code 254	Initial ring tone
Code 255	Intermediate ring tone

All ringing tones should be assigned a PCPM code of 8.

The PCPM code assigned to busy tones depends on in the circumstances the tone is heard. Normally, only the busy tone heard when calling a station that is in a busy state (someone is talking on the station) should be assigned a PCPM code of 7.

> **Note**: Any other types of busy tones (fast busy, re-order, do-not-disturb tone, etc.) should be assigned a PCPM code of 11.

This is especially important if the system is using the Call Queuing feature. For example, if the telephone system returns a fast busy when a called station is in the do-not-disturb state and you have assigned this tone a PCPM code of 7, the VP system offers the caller the option to queue.

Quick count

Not used.

On Time

This field identifies the average length of the ON times that Accucall detected during AUTO RUN. You should verify that this is truly an average. For example, with some telephone systems the first ON time of a busy signal is twice as long as the rest of the ON times. In these instances, discard this value and re-calculate the average based upon the remaining ON times in the test sample.

On Max Variance

This field identifies the longest ON time detected during the AUTO RUN sequence, and it is expressed both as time (in milliseconds) and as a percentage above the average calculated for ON TIME. There is usually only a 12% to 15% variance, and if this is the case, you probably do not need to re-calculate the average arrived at by Accucall in the ON TIME field. If the percentage is between 20% and 40%, repeat the AUTO RUN test several times to see if the performance improves. If it does not, you need to do a manual average calculation as explained above. Accucall can still work well with variances in this range as long as tones in the system have a wide enough difference in cadences (for example, re-order tone is twice the IPM of busy tone).

On Min Variance

This field identifies the shortest ON time detected during the AUTO RUN sequence. The values should be treated as discussed above.

On 2 Time

This field only appears for Ring2 or Busy2 type tones, and it represents the average length of the second ON period of the tone as calculated by Accucall. This parameter should be given the same consideration as ON TIME, which represents the first ON time of a double-type tone.

Off Time, Off Max Variance, Off Min Variance, Off 2 Time

These fields are the similar to those described above, only they identify the OFF period(s) of a tone cycle.

13.1.7 COMPLETING THE FILTERS SCREEN

From the MAIN MENU screen, press <F3> to go to the FILTERS screen.

The FILTER CHARACTERISTICS area values should be left at their default.

All of the frequencies detected during the AUTO RUN sequences performed are now shown in the UNDEFINED TONE FREQUENCIES area of the screen. If you have not already rounded off the values of the various frequencies on the EDIT TONES screen, or you can do it now.

To edit any of the values, press <F10> to return to the MAIN MENU screen. Note that all of the tones you defined previously now appear on the left side of the screen. Use the up and down arrow keys to highlight the tone to be edited, then press <F8> to access the EDIT TONES screen. Be certain you save the edited tones before exiting the screen.

When you finish editing tones, return to the FILTERS screen. All of the frequencies in the UNDEFINED TONE FREQUENCIES area should now adhere to the guidelines discussed earlier in this section.

You must now enter the frequencies listed in the UNDEFINED TONE FREQUENCIES area into this FILTERS table.

Note:	Tone defined as TERMINATING must be placed within the first 4 table entries.

When you have completed the FILTERS table, press <F2> to access the RUN screen.

13.1.8 COMPLETING THE RUN SCREEN

Using the RUN screen, you can test the tones defined in Accucall. The screen is described in detail below. When you finish working with the RUN screen, press <F10> to return to the MAIN MENU screen.

In the PCPM ANALYSIS area, make any necessary adjustments to the fields discussed below for the tone being tested.

Run Screen Field Descriptions

Phone No.

This field identifies the number to be dialed that produces the tone to be tested (for example, a busy station).

Verification Count

This field identifies the number of times the test is to repeat. Usually 1 or 2 times is sufficient.

Adjust Filter Characteristics

When starting the test for a particular tone, leave this field set to NO, the default. If the test result is not GOOD (see FILTER DETECTION later in this section), change this parameter to YES (highlight and press the spacebar to toggle), then repeat the RUN test until the results are satisfactory.

Recording File Name

You can make an actual recording of the tone being tested by entering a DOS file name in this field (or by using the default filename ACCUCALL.LIN), then pressing <F7> to start the test. Normally, the test is started by pressing <F9>, and no recording is made.

Function

This field displays the action currently being taken for the test call (on-hook, off-hook, dialing, etc.).

Status

As each of the above functions run, this field displays the current status (on-hook completed, etc.).

PCPM Code

This field indicates the PCPM code you assigned to this tone on the EDIT TONES screen. If no code is assigned, you must repeat the previous steps since this test has shown the Rhetorex board cannot successfully identify the tone.

(You can also answer one of the test calls and speak into the handset. A PCPM code of 10 appears showing that the Rhetorex board has identified voice on the line.)

Last Tone

This field identifies the NAME you entered in the EDIT TONES screen when the test was completed.

Filter Detection

In the FILTER DETECTION area of the screen, a graphical display of the relative success of the test displays. If the results are anything other than GOOD (graph bar is all white), highlight ADJUST FILTER CHARACTERISTICS and use the spacebar to change this field to YES. Press <F9> to start the test again. With each succeeding cycle, the filter detection quality improves.

When the AUTO ADJUST cycle is completed, the ADJUST FILTER CHARACTERISTICS field automatically changes back to NO. Press <F9> to run the test once again. The resulting graph bar should now indicate only GOOD. If the test results are still not satisfactory, repeat the Accucall procedures for this tone.

13.1.9 SAVING ACCUCALL TONES TO A FILE

The final step is to write all of the test results (PCPM Codes, Filters, etc.) to a DOS file.

> **Note**: If you fail to save this file, all of your work is lost when you exit Accucall.

On the MAIN MENU screen, all of the tones tested appear on the left side of the screen. These are the tones that will be saved to the file. Press <F7>. A pop-up window appears prompting you to enter a filename. Enter a name in DOS file format (up to 8 characters followed by a 3 character extension) that is descriptive of the phone system. For example PANASON.TON.

Once you type the filename, press <Enter> then press <F8> to save the file.

You can copy this file to a diskette for future use. If you install another VP system on the same type of telephone system, you can (usually) copy this file to the \VM directory on the VP system PC, instead of re-running Accucall.

13.1.10 MODIFYING A PREVIOUSLY SAVED FILE

If you need to add new tones or modify existing tones in a file saved from a prior Accucall session, you must first load the file into the program. From the MAIN MENU screen, press <F7>. A pop-up window appears with the prompt ENTER FILE NAME. Enter the name of the file you want to change, press <Enter>, then <F7> again to load the file into memory.

You can now perform all of the Accucall functions previously described. Save modifications using the technique described above.

13.1.11 ADJUSTING THE RHETOREX CONFIGURE FILE

Once you run Accucall or you copy files from a previous installation onto the VP system hard drive, you must enter the name of the Accucall file you created into the Rhetorex configuration file.

To adjust the Rhetorex Configure file:

To access the Rhetorex configuration file, from the \VM prompt, type CONFIGUR then press <Enter>. The MAIN MENU screen displays.

Press <F4>. A pop-up window PCPM FILE NAME SPECIFICATION displays with the prompt:

the default pcpm tone and filter tables will be replaced by:

Enter the DOS filename that was saved in the Accucall program, then press <F10>. The file name appears in both fields of the FILE box.

Press <F10> again to exit the CONFIGURE program. Press <Y> when prompted to save the changes just made to file.

Re-boot the PC to run the VP system.

13.2 Using Train for Dialogic Boards in DOS-based Systems

The Train utility teaches the Dialogic voice board the unique ringing and busy tones of the telephone system. Before running the Train utility verify:

Dialogic voice boards are connected to standard, 2500-type telephone lines, and they “hear” only what you hear when monitoring the line or performing the same function manually.

The cadence of the actual ringing of a telephone set is *not* to be the same cadence as the ring-back tone that is heard by the calling party (in this case the Dialogic board).

You understand any unique tones provided by the telephone system. The three most used tones are ring-back, busy, and re-order (fast busy), but the system may have other unique.

13.2.1 CONNECTING LINES FOR TRAINING TO THE BOARD

The Train program requires that two telephone lines are connected to the Dialogic board: one for making calls, and one for receiving calls. Connect telephone lines as shown below.

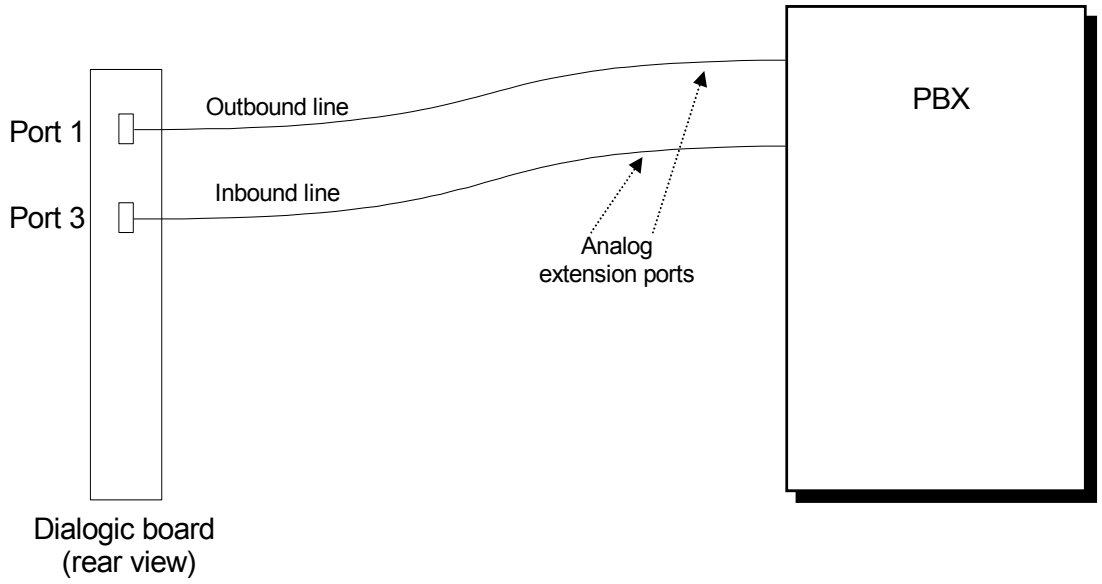


Figure 13-1 Connecting Telephone Lines for Training

13.2.2 RUNNING THE TRAIN UTILITY

Train uses the Dialogic program *PBXpert* to perform the actual "training." The training process consists of the following phases:

Starting the PBXpert program with the proper settings.

Configuring the PBXpert program.

Creating a new tone definitions file (.TSF file).

Consolidating the tones.

Testing the new tones.

13.2.3 STARTING THE PBXPERT PROGRAM

To start PBXpert:

Re-boot the PC.

When the menu appears offering the option to run the voice mail program or exit to DOS, select option 2 (Exit to DOS).

At the DOS prompt, type `TRAIN` then press <Enter>.

The Dialogic drivers load. Once they load, a message displays, indicating that the boards are installed. If the message reads, SERVER ALREADY RESIDENT begin again from step 1 above.

Press any key to continue. The PBXpert program starts.

13.2.4 CONFIGURING THE PBXPERT PROGRAM

To configure the PBXpert program:

From the PBXpert MAIN screen, press <Alt-C> to access the Config menu.

From this menu, select SETUP then press <Enter>.

In the field DIALING PREFIX/EXTENSION, enter the extension number associated with the in-bound line in Figure 13-1 above.

Leave the PHONE NUMBER field blank.

Set the OUTBOUND CHANNEL field to 1.

If you are using a 2-port board (D/21D or ProLine/2V), set the INBOUND CHANNEL field to 2. Otherwise, set the INBOUND CHANNEL field to 3.

In the REORDER TONE DIAL STRING field, enter a sequence of digits that will generate a reorder tone by the telephone system (for example, a non-existent extension).

Set the IRQ SETTING field to 5 (this is the default, if the board is set up to use a different IRQ, indicate that number here.

Set the CONTINUOUS TONE DEBOUNCE field to 4000.

Verify the ADVANCED VIEW field is not checked. (If it is, press the spacebar to clear the field).

Set the field DIAL TONE DEFINITION TO OVERWRITE to LOCAL.

Set the field INCLUDE DEFAULT TONE DEFINITIONS to YES.

Press <ALT-O> for OK. The MAIN screen displays.

13.2.5 CREATING A NEW PBXPERT TONE DEFINITIONS FILE (TSF FILE)

To create a new PBXpert tone definitions file:

From the PBXpert MAIN screen, press <Alt-F> to access the File menu.

Select NEW then press <Enter>. The MAIN screen re-displays, with no tone definition files listed.

Press <Alt-L> to access the Learn menu.

Select LEARN NEW then press <Enter>. You are prompted to enter the PBX make and model.

Enter the PBX make and model, then press <Alt-O> for OK.

A warning displays, indicating that you must run the driver with certain options to learn tones. Press <Enter> to continue. The LEARN screen displays.

Press <Alt-S> to begin the learning process.

PBXpert begins making calls and learning what each tone sounds like. This process takes several minutes. As PBXpert learns each tone, the tone definitions are added to the screen.

When PBXpert finishes, a message displays, indicating that learning is complete. To continue, press <Enter>. (If the program experiences a failure, check that the lines are properly connected as shown above).

To access a screen that allows you to save the tones, press <Alt-V>. The MAIN screen displays, and the new PBX name is listed.

Press <Alt-F> to access the File menu.

Select SAVE AS, then press <Enter>. You are prompted to enter the filename

Press the <Tab> key to move from the DIRECTORY field to the FILE field.

In the FILE field, enter the filename CPTONES.TSF then press <Enter>.

Move the cursor to the OK button by pressing the <Pg-Dn> key, then press <Enter>. The tones are saved, and the MAIN screen displays.

13.2.6 CONSOLIDATING PBXPERT TONES

You must merge (consolidate) the tones PBXpert learned with the default tones (North American network tones).

To consolidate PBXpert tones:

On the MAIN screen, verify the PBX name is selected in the TONE SETS list.

Press <Enter>. The PBX name should now also appear on the CONSOLIDATE SETS list.

Press <Alt-T> to access the TONE SETS menu.

Select CONSOLIDATE then press <Enter>.

In the window that displays, verify the field DIAL TONE DEFINITION TO OVERWRITE is set to LOCAL (use the <Tab> key to move between fields).

Verify the field USE DEFAULT TONE DEFINITIONS IN CONSOLIDATE is set to YES.

Press <Alt-O> for OK. A message displays indicating that the consolidation is complete. Press <Enter> to continue.

Press <Alt-F>. The FILE menu displays.

Select SAVE, then press <Enter>. The new (consolidated) tones are now saved in the file CPTONES.TSF.

13.2.7 TESTING THE NEW PBXPERT TONES

To test the new PBXpert tones:

1. From the PBXpert MAIN screen, press <Alt-T> to access the TONE SET menu.
2. Select TEST then press <Enter>. The TEST screen displays.
3. Press <Alt-S> to start the tests. PBXpert makes several calls, testing each tone in turn.
4. When testing is complete, a window displays indicating that the program has finished. Press <Enter> to continue. The TEST screen displays.

5. To return to the MAIN screen, press <Esc>.
6. Press <ALT-F> to access the FILE menu.
7. To close the PBXpert program, select EXIT then press <Enter>. The PBXpert program closes, and a DOS prompt displays.
8. Learning is complete. Re-boot the PC to run the VP system.

13.3 Using PBXpert for Dialogic Boards

The PBXpert/32 program teaches the Dialogic voice board the unique ringing and busy tones of the telephone system. Before running the Train utility verify:

- Dialogic voice boards are connected to standard, 2500-type telephone lines, and they "hear" only what you hear when monitoring the line or performing the same function manually.
- The cadence of the actual ringing of a telephone set is *not* be the same cadence as the ring-back tone that is heard by the calling party (in this case the Dialogic board).
- You understand any unique tones provided by the telephone system. The three most used tones are ring-back, busy, and re-order (fast busy), but the system may have other unique.

13.3.1 CONNECTING LINES FOR PBXPERT/32 TRAINING TO THE BOARD

The PBXpert/32 program requires that two telephone lines are connected to the Dialogic board: one for making calls, and one for receiving calls. Connect telephone lines as shown in Figure 13-1.

13.3.2 RUNNING THE PBXPERT/32 PROGRAM ON WINDOWS-BASED SYSTEMS

When run in the Windows environment, PBXpert/32 uses a wizard utility that allows you to easily proceed through all program setup and tone detection steps.

To run the PBXpert/32 wizard program:

1. Shut down the VP system if it is running (see section 2.4 for procedures).
2. From the Windows desktop, select the Start button, then choose Programs / Dialogic System Software / PBXpert. From the WELCOME screen that displays, select the Next button.
3. Indicate the MANUFACTURER and MODEL of the phone system to which the VP system is attached in the appropriate fields. The FILE NAME field updates automatically. Once you complete the fields, select the Next button.
4. On the TAPI INFORMATION screen, select the Next button.
5. On the SELECT BOARD screen, the board type installed in the system automatically displays. To continue, select the Next button.
6. On the SELECT CALLING RESOURCE screen, set the CHANNEL field to 1 and indicate the extension number of the voice mail port for channel 1 in the PHONE NUMBER field. To continue, select the Next button. Note that if the switch you are working with does not have a voice mail port that produces dial tone, you must use a non-voice mail port.
7. Repeat step 6, setting the CHANNEL field to 2 and indicating the extension number of the port for channel 2 in the PHONE NUMBER field. To continue, select the Next button. The program performs a channel verification.

8. On the left portion of the screen, double-click on the phone system name that displays to activate the button in front of the name. The button turns green when activated.When the SETTINGS CONFIRMATION screen displays, select the Next button to continue. The program runs, learning the busy, ring, and disconnect tones generated by the phone system. When the process is complete, a screen displays defining all the frequencies that were defined.
9. Once you activate the phone system button, access the Tones menu, and select the Consolidate option.
10. Access the File menu, and select Save. You are prompted to indicate a filename. Assign a name that is descriptive of the phone system type. The file extension .TSF is automatically assigned.
11. Access the Tones menu again, and select the Activate option.
12. To confirm the tone file is now appropriately defined and loaded, from the Windows desktop, select the Start button, then choose Programs / Dialogic System Software / Advanced Tone Features. The path to the tone file should read \DLGCDEV\DIALOGIC\DATA\[FILENAME].TSF, where [FILENAME] is the name you assigned to the tone file generated by the wizard program.
13. To exit the screen, select OK.
14. Restart the VP system PC to invoke the changes.

13.4 Using Accucall for Rhetorex Boards

This section is currently being developed. For help using the Accucall utility on a Windows-based VP system, please call Technical Support.

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14. MAKING BACKUPS

If the VP system has a hard drive or other system failure, the site can lose some or all of the system data. Without a current backup, you may need to re-install the VP system and re-enter all of the system programming. It is strongly recommended that the VP system installer and on-site VP system supervisor work closely to ensure that system backups are made frequently.

> **Note:** See section 16 for information on where VP system files are stored.

14.1 Backing up DOS-based Systems to Diskette

To create a comprehensive back up of a DOS-based VP system, you must back up the following information:

AUTOEXEC.BAT and CONFIG.SYS files

Database and setup files

Voice files such as greetings, names, and messages

> **Note**: The backup described in this section is not a full backup. To fully recover from a complete hard drive failure, you should regularly back up the entire system to tape.

To complete the backup procedure, you need several blank high-density diskettes. Label each diskette with a number, beginning with Backup Disk 1.

> **Note**: Procedures in this section assume that the diskette drive on the VP system PC is drive A and the system's hard drive is drive C. Also, these procedures assume that the VP system is installed in the \VM directory on drive C. If this is not the case, substitute the correct letters in the procedure instructions.

14.1.1 COPYING THE AUTOEXEC.BAT AND CONFIG.SYS FILES

To create a backup copy of the AUTOEXEC.BAT and CONFIG.SYS files:

Insert Backup Disk 1 in drive A.

At the DOS prompt, go to the top-level directory by typing `CD \` then pressing <Enter>.

Copy the AUTOEXEC.BAT file by typing `COPY AUTOEXEC.BAT A:\` then pressing <Enter>.

Copy the CONFIG.SYS file by typing `COPY CONFIG.SYS A:\` then pressing <Enter>.

Remove the diskette from drive A.

14.1.2 COPYING THE DATABASE AND SETUP FILES

To create a backup copy of the database and setup files:

Insert Backup Disk 2 in drive A.

At the DOS prompt, go to the VP system directory by typing `CD \VM` then pressing <Enter>.

Copy the database files by typing `COPY *.DVM A:\` then pressing <Enter>.

Copy the other configuration files by typing:
`COPY *.CFG A:\` then pressing <Enter>
COPY TRANS*.* A:\ then pressing <Enter>
COPY NUMLINES.TXT A:\ then pressing <Enter>
COPY SWITCHES.TXT A:\ then pressing <Enter>
COPY PBXLINK.TXT A:\ then pressing <Enter>
COPY LOGINS.TXT A:\ then pressing <Enter>

If you have Rhetorex voice boards, copy the Rhetorex driver configuration file by typing `COPY CONFIG A:\` then pressing <Enter>.

If you have Dialogic voice boards, copy the Dialogic driver configuration file by typing `COPY DIALOGIC.CFG A:\` then pressing <Enter>.

If you have an SMDI integration, copy the *.LNK files by typing `COPY *.LNK A:\` then pressing <Enter>.

Copy any custom tone files by typing `COPY *.TON A:\` then pressing <Enter> and typing `COPY *.TSF A:\` then pressing <Enter>.

Remove the diskette from drive A.

14.1.3 COPYING GREETINGS, NAMES, AND MESSAGES

Note:	When using the XCOPY command in the following procedures, you may see the DOS message “Insufficient Disk Space.” Insert a new diskette in the drive A and re-type the same XCOPY command. Because of the way the XCOPY command has been input, DOS monitors which files have been copied and re-starts the copy on the new diskette where it left off on the previous one. Be advised that because each system varies, the diskette numbering in this procedure may not match your application. This procedure assumes that only one disk is needed for each copy process.

To create a back up copy of greetings, names, and messages:

Insert Backup Disk 3 in drive A.

At the DOS prompt, go to the messages directory by typing `CD \VM\M` then pressing <Enter>.

Copy the message files by typing `XCOPY GT*.* A:\ /M /E /S` then pressing <Enter>.

Remove Backup Disk 3, and insert Backup Disk 4.

Copy the recorded names by typing `XCOPY NM*.* A:\ /M /E /S` then pressing <Enter>.

Remove Backup Disk 4, and insert Backup Disk 5.

Copy the recorded messages by typing `XCOPY MG*.* A:\ /M /E /S` then pressing <Enter>.

> **Note:** If you have a problem copying the files using XCOPY with switches, you can reset the switches and start over by typing ATTRIB +A *.* /S then pressing <Enter> at the C:\VM\M directory prompt.

14.1.4 AUTOMATING THE BACKUP PROCESS ON DOS-BASED SYSTEMS

You can set up DOS-based systems to automatically perform system backups by including backup commands in the DISKM.BAT file, which is run each night when the VP system exits to DOS. (The exit time is specified on the GENERAL INFORMATION screen.) See section 21.6 for additional information on editing the DISKM.BAT file.

14.2 Restoring Files on DOS-based Systems

> **Note**: The restore procedure described in this section does not include all the programming files needed to run the VP system. If you are starting with a new hard drive or a completely re-formatted hard drive, install a new version of DOS and re-install the same version of the VP system. Copy these files over the new copy of the VP system files that may be installed on the hard drive.
>
> If you need to restore only certain files from the back up, you can simply copy those files to the system. Be sure to copy the files back to the correct directory and sub-directory.

14.2.1 RESTORING THE AUTOEXEC.BAT AND CONFIG.SYS FILES

To restore the AUTOEXEC.BAT and CONFIG.SYS backup:

Insert Backup Disk 1 in drive A.

At the DOS prompt, go to the top-level directory by typing `CD \` then pressing <Enter>.

Restore the AUTOEXEC.BAT file by typing `COPY A:\AUTOEXEC.BAT C:\` then pressing <Enter>.

Restore the CONFIG.SYS file by typing `COPY A:\CONFIG.SYS C:\` then pressing <Enter>.

Remove the diskette from drive A.

14.2.2 RESTORING THE DATABASE AND SETUP FILES

To restore the database and setup files backup:

Insert Backup Disk 2 in drive A.

At the DOS prompt, go to the VP system directory by typing `CD \VM` then pressing <Enter>.

Restore the database files by typing `COPY A:\*.DVM C:\VM` then pressing <Enter>.

Restore the other configuration files by typing:
`COPY A:\*.CFG C:\VM` then pressing <Enter>
COPY A:\TRANS*.* C:\VM then pressing <Enter>
COPY A:\NUMLINES.TXT C:\VM then pressing <Enter>
COPY A:\SWITCHES.TXT C:\VM then pressing <Enter>
COPY A:\PBXLINK.TXT C:\VM then pressing <Enter>
COPY A:\LOGINS.TXT C:\VM then pressing <Enter>

If you have Rhetorex voice boards, restore the Rhetorex driver configuration file by typing `COPY A:\CONFIG C:\VM` then pressing <Enter>.

If you have Dialogic voice boards, restore the Dialogic driver configuration file by typing `COPY A:\DIALOGIC.CFG C:\VM` then pressing <Enter>.

If you have an SMDI integration, copy the *.LNK files by typing `COPY A:\*.LNK C:\VM` then pressing <Enter>.

Copy any custom tone files by typing `COPY A:\*.TON  C:\VM` then pressing <Enter> and typing `COPY A:\*.TSF  C:\VM` then pressing <Enter>.

Remove the diskette from drive A.

14.2.3 RESTORING NAMES GREETINGS, NAMES, AND MESSAGES

To restore the greetings, names, and messages backup:

Insert Backup Disk 3 in drive A.

At the DOS prompt, go to the messages directory by typing `CD \VM\M` then pressing <Enter>.

Restore the message files by typing `COPY A:\*.* C:\VM\M` then pressing <Enter>.

Remove the diskette from drive A, and insert the next one in sequence.

Repeat steps 3 and 4 until all disks have been copied to the hard drive.

14.3 Backing up Windows-based Systems

Most Windows-based systems shipped as turnkey systems include a tape backup drive that facilitates the system backup process. You can make an immediate backup of the VP system to tape, or you can schedule regular, automatic backups of the VP system.

14.3.1 MAKING AN IMMEDIATE BACKUP ON NT-BASED SYSTEMS

Use the procedure below to make an immediate backup. (This procedure assumes the VP system software is installed on drive C of the PC. If the software is installed on a different drive, make the appropriate drive letter substitution below.)

Note that to back up the VP system, you must shut it down. System shut down terminates all calls that are currently being handled by the VP system. Do not shut down the system unless all ports are free.

Note:	Before completing this procedure, verify that the tape cartridge is formatted and functioning properly by inserting it into the tape drive, then selecting the Start button / Programs / Administrative Tools / Backup. Address any errors you receive before continuing.

To make an immediate backup on an NT-based VP system:

Label a blank, formatted tape cartridge appropriately then insert it in the drive.

Select the Start button from the bottom of the Windows desktop, then select Run. In the Run dialog box, type `C:\VM\BACKUPVM.BAT` (where `C` is the drive on which the VP system is installed) then click on the OK button.

This batch file stops the VP system and backs up the entire system including VP system program files, greetings, prompts, and messages. Once it completes the backup, the batch file restarts the VP system automatically.

14.3.2 AUTOMATING THE BACKUP PROCESS ON NT-BASED SYSTEMS

You can set up NT-based systems to perform system backups automatically by following the procedure below.

To automate backups on an NT-based VP system:

Insert a blank, formatted tape cartridge in the drive.

If you have not done so in the previous procedure, start the Schedule service: Double click on the Services icon on the Windows desktop. From the SERVICES screen, highlight SCHEDULE, then select the Startup button.

On the screen that displays, select the AUTOMATIC option then click on the OK button.

On the SERVICES screen, select the Start button. To exit the Services screen, select the Close button.

Select the Start button from the bottom of the Windows desktop, then select Run. In the Run dialog box, type `C:\VM\ATVM.BAT` (where `C` is the drive on which the VP system is installed) then click on the OK button.

Each night at 3:00 AM, an automatic backup is now made of the entire VP system. To modify this command so it runs on only certain days or at a time other than 3:00 AM, contact Technical Support for instructions on modifying the ATVM.BAT file.

14.3.3 MAKING AN IMMEDIATE BACKUP ON WINDOWS 2000-BASED SYSTEMS

Use the procedure below to make an immediate backup. Note that to back up the VP system, you must shut it down. System shut down terminates all calls that are currently being handled by the VP system. Do not shut down the system unless all ports are free.

To make an immediate backup on a Windows 2000-based VP system:

From the Start button at the bottom of the Windows 2000 desktop, select Programs / Accessories / System Tools / Backup. The Windows backup utility program loads.

From the Windows Backup screen, select Backup Wizard and follow the prompts to make an immediate backup.

14.3.4 AUTOMATING THE BACKUP PROCESS ON WINDOWS 2000-BASED SYSTEMS

You can set up Windows 2000-based systems to perform system backups automatically.

To automate backups on a Windows 2000-based VP system:

From the Start button at the bottom of the Windows 2000 desktop, select Programs / Accessories / System Tools / Backup. The Windows backup utility program loads.

From the Windows Backup screen, select Backup Wizard or the Schedule Jobs tab and follow the prompts to set up an automated backup.

14.4 Restoring Files on Windows-based Systems

14.4.1 RESTORING FILES ON NT-BASED SYSTEMS

To restore information from a tape backup on an NT-based VP system:

From the Start button at the bottom of the Windows NT desktop, select Programs / Administrative Tools / Backup. The Windows NT backup utility program loads.

From the Windows NT Backup utility screen, select the Restore button.

Follow the prompts to restore files from the tape backup cartridge.

14.4.2 RESTORING FILES ON WINDOWS 2000-BASED SYSTEMS

To restore information from a tape backup on a Windows 2000-based VP system:

From the Start button at the bottom of the Windows 2000 desktop, select Programs / Accessories / System Tools / Backup. The Windows backup utility program loads.

From the Windows Backup screen, select Restore Wizard and follow the prompts.

15. SYSTEM PROMPTS

Listed below are all the *standard* system prompts used in the voice mail systems. (The prompts used with each optional module are shown in the section of this manual discussing the module.) Some of the prompts are similar, and notes are provided to explain the differences.

> **Note:** Do not confuse the *pager notification* feature with the *P.A. announcing* feature. The P.A. announcing feature involves the use of the company's public address system. Pager notification involves the use of Tone, Voice, and Digital pocket pagers

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Prompt	File Name	Wording
--	GT000000800.GRT on Windows-based systems or GT000800.GRT	If you know the extension of the party you would like to speak with, enter it now. For a directory, press *. For the operator, press 0.
--	GT000000801.GRT on Windows-based systems or GT0000801.GRT	If you know the extension of the party you would like to speak with, enter it now. For a directory, press *.
--	GT000000821.GRT on Windows-based systems or GT000821.GRT	If you know the extension of the party you would like to speak with, enter it now. For a directory, press *.
--	GT000000888.GRT on Windows-based systems or GT000888.GRT	The operator is not available right now. If you would like to leave a message, press 1. If you would like to try another extension, press 3.
--	NM000000888.NAM on Windows-based systems or NM000888.NAM	The operator…
--	GT000009998.GRT on Windows-based systems or GT009998.GRT	"Enter the first 3 letters of the last name of the party you would like to speak with. Use the 1 button for Q and Z, or press * for a complete directory listing."
--	GT000009998.OP1 on Windows-based systems or GT009998.OP1	"Enter the first 3 letters of the last name of the party you would like to speak with. Use the 1 button for Q and Z."
--	GT000009998.OP2 on Windows-based systems or GT009998.OP2	"Enter the first 3 letters of the first name of the party you would like to speak with. Use the 1 button for Q and Z, or press * for a complete directory listing."

Prompt	File Name	Wording (Continued)
--	GT000009998.OP3 on Windows-based systems or GT009998.OP3	"Enter the first 3 letters of the first name of the party you would like to speak with. Use the 1 button for Q and Z."
--	onesilnc.voi	(One second of silence.)
1	thatbox.voi	"That extension"
2	isntaval.voi	"is not available right now."
3	mboxmenu.voi	"If you would like to leave a message, press 1. If you would like to try another extension, press 3. Or, to speak to an operator, press 0." "To have the call announced over our P.A. system, press 5." *(see also prompt 260)*
4	recconf.voi	"Your message has been recorded."
5	dontunde.voi	"I'm sorry, that was not a valid entry." (Prompt played when a mailbox owner dials an invalid digit while in an open mailbox.)
6	bad_id.voi	"I'm sorry, that was not a valid entry." (Prompt played when a caller dials an invalid digit.)
7	bye.voi	"Thank you, good-bye."
8	digit0.voi	"Zero"
9	digit1.voi	"One"
10	digit2.voi	"Two"
11	digit3.voi	"Three"
12	digit4.voi	"Four"
13	digit5.voi	"Five"
14	digit6.voi	"Six"
15	digit7.voi	"Seven"
16	digit8.voi	"Eight"
17	digit9.voi	"Nine"
18	digitstr.voi	"Star"
19	digitpnd.voi	"Pound"
20	morenine.voi	"More than fifty"
21	am.voi	"AM"
22	pm.voi	"PM"
23	num10.voi	"Ten"
24	num11.voi	"Eleven"
25	num12.voi	"Twelve"
26	num13.voi	"Thirteen"
27	num14.voi	"Fourteen"

Prompt	File Name	Wording (Continued)
28	num15.voi	"Fifteen"
29	num16.voi	"Sixteen"
30	num17.voi	"Seventeen"
31	num18.voi	"Eighteen"
32	num19.voi	"Nineteen"
33	num20.voi	"Twenty"
34	n21.voi	"Twenty-one"
35	n22.voi	“Twenty-two”
36	n23.voi	"Twenty-three"
37	n24.voi	"Twenty-four"
38	n25.voi	"Twenty-five"
39	n26.voi	"Twenty-six"
40	n27.voi	"Twenty-seven"
41	n28.voi	"Twenty-eight"
42	n29.voi	"Twenty-nine"
43	num30.voi	"Thirty"
44	n31.voi	"Thirty-one"
45	num40.voi	"Forty"
46	num50.voi	"Fifty"
47	jan.voi	"January"
48	feb.voi	"February"
49	mar.voi	"March"
50	apr.voi	"April"
51	may.voi	"May"
52	jun.voi	"June"
53	jul.voi	"July"
54	aug.voi	"August"
55	sep.voi	"September"
56	oct.voi	"October"
57	nov.voi	"November"
58	dec.voi	“December”
59	whichbox.voi	"Please enter your mailbox number "
60	enterpas.voi	"Please enter your password "
61	youhave.voi	"You have"
62	newmesg1.voi	"new message"
63	newmesgs.voi	"new messages"
64	towhom.voi	"Please enter the box number "

Prompt	File Name	Wording (Continued)
Prompts 65, 66, and 67 are similar. Prompt 65 is used for a regular mailbox. Prompt 66 is used for a mailbox that is restricted. Prompt 67 is used for a mailbox that owns at least one Question box.		
65	mainmenu.voi	"Main menu. To listen to your messages, press 1. To send a message, press 2. To change your options, press 3. Or to exit, press #." “To change languages, press 5. For supervisor functions, press 6. To place an outgoing call, press 0.”
66	cmainmnu.voi	"Main menu. To listen to your messages, press 1. To send a message, press 2. Or to exit, press #. "To change languages, press 5.”
67	mainmenx.voi	"Main menu. To listen to your messages, press 1. To send a message, press 2. To change your options, press 3. To listen to questionnaire answers, press 4. Or to exit, press #.” "To change languages, press 5. For supervisor options, press 6. To place an outgoing call, press 0.
68	lstnmenu.voi	"Message menu. To listen to new messages, press 1. To listen to saved messages, press 2. Or to return to the main menu, press #."
69	optnmenu.voi	"Options menu. To record your name, press 1. To record your greeting, press 2. To change your password, press 3. To change your call-transfer feature, press 4. To change your message-notification feature, press 5. To change your pager feature, press 6. To review messages scheduled for future delivery, press 7. To change your Personal Distribution Lists, press 8. To retrieve a message that you have already sent to another mailbox, press *. Or, to return to the main menu, press #."

Prompt	File Name	Wording (Continued)
70	loldsubm.voi	"To replay the message, press 1. To save and hear the next message, press 2. To save the message as new, press 3. To delete the message, press 4. To adjust the volume, press 5. Or, to return to the main menu, press #."
71	lnewsubm.voi	"To replay the message, press 1. To save and hear the next message, press 2. To save the message as new, press 3. To delete the message, press 4. To adjust the volume, press 5. For other options, press 6. Or, to return to the main menu, press #."
72	nomornew.voi	"You have no more new messages."
73	nonewmsg.voi	"You have no new messages."
74	nomorold.voi	"You have no more saved messages."
75	nooldmsg.voi	"You have no saved messages."
76	savasnew.voi	"Message saved as new."
77	boxalopn.voi	"That box is currently in use, please try again later."
78	nononono.voi	"No"
79	spkaftrt.voi	"Please speak after the tone. When you are finished recording, you may press pound for further options, or simply hang up."
80	noroom.voi	"The voice mail system is full, and cannot take messages right now."
81	msgdeltd.voi	"Message deleted."
82	lqmenu.voi	"For new questionnaire answers, press 1. For old questionnaire answers, press 2. Or, to return to the main menu, press #. "
83	newqmsg.voi	"new questionnaire answer."
84	newqmsgs.voi	"new questionnaire answers."
85	andand.voi	“and”
86	nogtrec.voi	"There is currently no greeting recorded."
87	curgreet.voi	"Your current greeting is"
88	currname.voi	"The current recording is"
89	nonamrec.voi	"There is currently nothing recorded."
90	enterpsw.voi	"Please enter your new password."
91	pswchg.voi	"Your password has been changed, and will be in effect the next time you call."
92	psnotchg.voi	"Your password has NOT been changed."

Prompt	File Name	Wording (Continued)
93	grtopt.voi	"To replay the greeting, press 1. To re-record the greeting, press 2. To delete the greeting, press 3. To choose a new greeting, press 5. Or, to exit, press #."
94	nameopt.voi	"To replay, press 1. To re-record, press 2. To delete, press 3. Or to exit, press #. "
95	xwhocall.voi	"Please speak your name so I may announce who is calling."
96	xplshold.voi	"Please hold while I transfer your call to"
97	xcalfryu.voi	"I have a call for you."
98	xcallfrm.voi	"Call from"
99	xstraccp.voi	"Press 1 to take the call. Press 2 if you would like me to take a message. Press 3 to transfer this call to your alternate extension. Press 4 plus the greeting number to play a special greeting. Press 5 plus the extension number to transfer this call to any station. Press 6 to accept the call, and record it.”
100	qboxwrap.voi	"Thank-you for answering our questions. We will get back to you as soon as possible."
101	entrpcbk.voi	"Please dial your own number now "
102	pageconf.voi	"That party will be paged right away."
103	pagefail.voi	"I am not able to page that party right now."
104	grttochg.voi	"Enter the number of the box whose greeting you wish to change."
105	dontown.voi	"I'm sorry, you do not own that box."
106	msgfor.voi	"Message for"
107	you.voi	"you"
108	press1.voi	"Press 1 if you would like to hear your messages "
109	cont3way.voi	"Press 1 if you wish to continue your call.”
110	fwd.voi	"Your message has been forwarded."
111	nofwd.voi	"I'm sorry, I am not able to forward your message at this time."
112	confsend.voi	"If this is correct, press 1. If not, press pound."
113	msgfrom.voi	"from"
114	reentpsw.voi	"Please enter your new password again."
115	wrdpause.voi	"Pause"
116	wrdflash.voi	"Flash"
117	offoff.voi	"Off"

Prompt	File Name	Wording (Continued)
118	vm.voi	"Voice mail"
119	entfeatn.voi	"Please enter the new number."
120	nfeatis.voi	"Your message-notification feature is"
121	pfeatis.voi	"Your pager service is"
122	xfeatis.voi	"Your calls are currently being transferred to"
123	featopt.voi	“Press 1 if you would like to change the number, press star to turn this feature on or off. or press pound if you are satisfied.”
124	commopt.voi	"To add a comment at the beginning of the message, press 1. To add a comment at the end of the message, press 2. To forward the message with no comment, press 3. To return to the main menu without forwarding the message, press #."
125	msgoptin.voi	"To send this message, press 1. To review the message, press 2. To re-record the message from the beginning, press 3. To cancel the message, press 4. To add to your message press 8." (External caller hears this prompt.)
126	reccancl.voi	"Message canceled."
127	locmusic.voi	Music *This is a short piece of music (about 15 seconds). It is played to the caller when a Local Transfer is in progress. This is not the music heard during call queuing.*
128	wordat.voi	"At"
129	wordfor.voi	"For"
130	endofmsg.voi	"End of message."
131	dirpres1.voi	"If this is the person you want, press 1, or press 2 for the next name." “If you would like to try a different spelling, press 3, or to exit from the directory, press #.”
132	dirnumis.voi	"The number is"
133	nodirmat.voi	"There are no names that match those letters."
134	nomordir.voi	"There are no more names that match those letters."
135	askl.voi	"Press 1 for English or 2 for Spanish." *Up to nine languages can be supported. This prompt should be repeated in all the offered languages. The Language 1 version of this prompt is the <u>only</u> one that is played when the VP system answers a call.*
136	isbusy.voi	"is busy."
137	istlbusy.voi	"is still busy."
138	inline.voi	"in line."

Prompt	File Name	Wording (Continued)
139	hldoptn.voi	"If you would prefer to leave a message, press 1, or to try another extension, press 3." "To speak to an operator, press 0." If a caller presses 3, he/she receives the treatment as defined on the MAILBOX screen in the field labeled IF CALLER CHOOSES OTHER OPTIONS. If the caller presses 1 to leave a message, he/she does not receive the mailbox owner's personal greeting. If you want callers to hear the personal greeting, substitute one of the optional prompts that omits the "press 1" option.
140	wilbedel.voi	"You have asked for this message to be deleted."
141	wasfwded.voi	"This message was automatically forwarded from"
142	supvmenu.voi	"Supervisor's menu. For mailbox administration, press 1. For Routing box administration, press 2. For Question box administration, press 3. For port administration, press 4. To change the system broadcast message, press 5. To change the Voice mail day/night service, press 6. To change the system time, press 7. To change the system date, press 8. To modify system parameters, press 9. To perform first time setup, press 0. Or to exit, press #." *The first time setup option is not available on Windows-based systems.*
143	supfok.voi	"Operation completed successfully."
144	supffail.voi	"I'm sorry, I was not able to perform that operation."
145	supexist.voi	"I'm sorry, that box already exists."
146	hold0.voi	First hold-prompt. (Pre-Recorded music, by default.) This is the first recording callers hear when they are placed on hold for a mailbox. This would typically be a short piece of music or a promotional message.
149	qbaddigi.voi	"That was an incorrect number of digits."
150	paintro.voi	"Please hold while I announce your call."
151	paann1.voi	"There is a call for"
152	paann2.voi	"Please dial the pick-up code for your extension." You may give more specific instructions (for example, tell the called party what to dial to pick up the call).
153	pabusy.voi	"I'm sorry, the P.A. system is busy right now."
154	panoresp.voi	"Your call has been announced, please hold a moment."

Prompt	File Name	Wording (Continued)
155	goxfer.voi	"You may transfer the call now."
156	sndrnotf.voi	"The sender will be notified that you received this message."
157	dlvrcnf1.voi	"This is to notify you that the message you sent to"
158	dlvrcnf2.voi	"was received by"
159	today.voi	"Today"
160	yesterda.voi	"Yesterday"
161	oldmesg1.voi	"Saved message"
162	oldmesgs.voi	"Saved messages"
163	nextbox.voi	“Please enter the number of the next mailbox, or press pound if you are finished.”
164	whichprt.voi	"Please enter the line number."
165	msgopcnf.voi	"To send this message, press 1. To replay the message, press 2. To re-record the message from the beginning, press 3. To cancel the message, press 4. If you would like to be notified when your party has received this message, press 5. To send this message to several mailboxes, press 6. To resume recording from the point where you stopped, press 8. To play back the last few seconds of your message, press 9. To schedule this message to be sent at a future time and date, press *." (*Internal callers hear this prompt.*)
166	interans.voi	*Tone played between each Question box answer.*
167	boxsusp.voi	"I'm sorry, that box is temporarily out of service."
168	numblock.voi	"I'm sorry, that number is not acceptable."
169	gtnumchg.voi	"Please enter the greeting number, or press * for the current active greeting."
170	thatgret.voi	"That greeting is currently recorded as"
171	goodmorn.op1	"Good morning” When prompts 171, 172, and 173 are recorded, they are inserted automatically before the main greeting according to the time of day.
172	goodafte.op1	"Good afternoon" *When prompts 171, 172, and 173 are recorded, they will be inserted automatically before the main greeting according to the time of day.*
173	goodeven.op1	"Good evening" When prompts 171, 172, and 173 are recorded, they will be inserted automatically before the main greeting according to the time of day.

Prompt	File Name	Wording (Continued)
174	askrplay.voi	"If you would like to review your answer, press 1. Or press 2 to move on to the next question."
175	answeris.voi	"Your answer is currently recorded as"
176	enterout.voi	"Please enter the telephone number to which you wish to be transferred."
177	onemomnt.voi	"One moment please."
178	loptsubm.voi	"To delete the message, press 4. To hear the message time and date, press 5. Or to exit, press #."
179	schaskhr.voi	"Please enter the hour that you wish for this message to be sent."
180	schaskmi.voi	"Please enter the minutes."
181	schaskmo.voi	"Please enter the month."
182	schaskda.voi	"Please enter the day."
183	schaskam.voi	"Press 1 for AM, press 2 for PM."
184	schaskok.voi	"You have asked for this message to be delivered."
185	schmsgok.voi	"Your message will be sent as requested."
186	schmsgno.voi	"I'm sorry, I am unable to schedule your message for future delivery."
187	schnomsg.voi	"You have no messages scheduled for future delivery."
188	schnomor.voi	"You have no more messages scheduled for future delivery."
189	schrview.voi	"To listen to the message, press 1. To hear the next message, press 2. To cancel the message, press 4. Or, to exit, press #."
190	supbrcst.voi	"To hear the current broadcast message, press 1. To re-record the broadcast message, press 2. To delete the broadcast message, press 3. Or, to exit, press #."
191	num60.voi	"Sixty"
192	num70.voi	“Seventy”
193	num80.voi	"Eighty"
194	num90.voi	"Ninety"
195	num100.voi	"Hundred"
196	num1000.voi	"Thousand"
197	qbxnotif.voi	"This is to notify you that there are new answers in your Question box."
198	tutintro.voi	"Welcome to your new mailbox. In order to familiarize you with your new mailbox, I would like to briefly describe some of its features. You may exit from this tutorial at any time by pressing the # key."

Prompt	File Name	Wording (Continued)
199	tutgrt.voi	"If you are not able to answer your phone, I will play your personal greeting to the caller. Your greeting should sound something like this: 'Hello, this is Mary. I'm sorry I cannot take your call right now. If you would like to leave me a message, press 1, or press 3 if you would like to speak to someone else.' Once you have recorded your greeting, you can change it at any time. Press 1 if you would like to record your personal greeting now. Otherwise, press 2."
200	tutgrtis.voi	"Thank you. Your callers will hear the following greeting..."
201	tutname.voi	"There are times when I need to say your name. For example, when the system is about to transfer a call to your extension, the caller will hear: 'Please hold while I transfer your call to Mary Jones.' I need you to record your name. Press 1 if you would like to record your name now. Otherwise, press 2."
202	tutnamis.voi	"Thank you. Your name is now recorded as..."
203	tutpsw.voi	"To protect your privacy, you will be asked to enter your password each time you open your mailbox. This prevents unauthorized callers from gaining access to your messages. You should change your password frequently. If you would like to change it now, press 1. Otherwise, press 2."
204	tutpswis.voi	"Your password is..."
205	tutend.voi	"This ends the tutorial. The Main menu follows."
206	tutisok.voi	"If this is acceptable, press 1. If you would like to change it, press 2."
207	tutcancl.voi	"Thank you. This tutorial will not be repeated."
208	tutwrap.voi	"Thank you for taking part in the tutorial. The tutorial will be played each time you open your mailbox. If you would like to cancel it, press the * key now."
209	tutenabl.voi	"The tutorial will be played the next time you open your mailbox."
210	spkaftr2.voi	"Please speak after the tone. When you are finished recording press #."
211	qbconfis.voi	"Your confirmation number is"
212	p1repeat.voi	"To hear this number again, press 1."
213	dollars.voi	"Dollars"
214	cents.voi	"Cents"
215	tomorrow.voi	"Tomorrow"
216	num1mill.voi	"Million"
217	acdbusy.voi	"All agents are busy."
218	acdstbsy.voi	"All agents are still busy."
219	acdqopts.voi	"If you would like to try a different extension, press 1, or press 0 if you would like to speak to the operator."

Prompt	File Name	Wording (Continued)
220	oh.voi	"oh"
221	urgntmsg.voi	"This message is marked urgent."
222	isurgent.voi	"of these is marked urgent."
223	arurgent.voi	"of these are marked urgent."
224	manfwded.voi	"This message was forwarded to you from…"
225	privtmsg.voi	"This message is marked private."
226	prvnofwd.voi	"This message is private, and cannot be forwarded."
227	asklgoff.voi	"This mailbox is currently logged on with VCM. To disconnect VCM and open your mailbox, press 1."
228	spelname.voi	"Please spell out the first 3 letters of the last name."
229	sndspcl1.voi	"For normal delivery, Press 1. For urgent delivery press 2.
230	sndspcl2.voi	"For normal delivery, press 1. To mark this Urgent, press 2. To mark this Private press 3. If you would like to be notified when your party has received this message, press 5."
231	tutdir.voi	"There may be times when callers will know your name but not your extension number. I can transfer calls using the letters of your name. If you would like to be included in the "dial by name directory, press 1."
232	tutgetdr.voi	"Using your telephone keypad, please spell the first 3 letters of your last name."
233	tutdiris.voi	"The digits which will spell your name are"
234	towhodir.voi	"Please enter the box number, if you do not know the box number, press *."
235	optnmen2.voi	"To add or remove customer service extensions, press 0."
236	acdadmin.voi	"To add an extension to this customer service group, press 1. To remove an extension, press 2. To exit press #."
237	acdmemys.voi	“Is a member of customer service group”
238	acdmemno.voi	"Is not a member of customer service group"
239	askextn.voi	"Please enter the extension number."
240	acdadded.voi	"Has been added to customer service group"
241	acdremov.voi	"Has been removed from customer service group"
242	supvmbox.voi	"To add, press 1. To delete, press 2. To modify, press 3. To suspend, press 4. To restore, press 5. To reset, press 6. Or to exit, press #."

Prompt	File Name	Wording (Continued)
243	supvtbox.voi	"To add, press 1. To delete, press 2. To modify, press 3. Or to exit, press #."
244	supvport.voi	"To disable, press 1. To enable, press 2. Or to exit, press #."
245	supvtbx2.voi	"To change the greeting, press 1. To change the routing, press 2. Or to exit, press #."
246	chgyesno.voi	"If you would like to change this, press 1, otherwise press #."
247	enterdgt.voi	"For digits 0 through 9, please enter the digit, or press * for special routing options."
248	spclrout.voi	"To change the destination for the star digit, press *. To change the destination for the pound digit, press #. To change the 'no digits' destination, press 1. To change the 'invalid digit' destination, press 2. Or to change the 'voice detected' destination, press 3."
249	dgtroute.voi	"The current destination is"
250	entrdest.voi	"Please enter the new destination"
251	entrques.voi	"Please enter the question number"
252	supvqbx2.voi	"To change the greeting, press 1. To record a question, press 2. Or to exit, press #."
253	modeis.voi	"The voice mail system is currently in"
254	supvmode.voi	"To change the voice mail system to Day service mode, press 1. To change the voice mail system to Night service mode, press 2. To change the voice mail system to Lunch service mode, press 3. Or to exit without making any changes, press #."
255	modeday.voi	"Day service mode"
256	modenite.voi	"Night service mode"
257	modelnch.voi	"Lunch-time service mode"
258	modeholi.voi	"Holiday service mode"
259	dgttohld.voi	"If you wish to remain on hold, please press"
260	mboxmen2.voi	"If you would like to record a message, press 1. To page this party, press 2. If you wish to speak to the operator press 0. Or for other options, press 3." “To have the call announced over our P. A. system, press 5.” (Prompt played when mailbox has a pager number assigned. See also prompt 3).
261	youarnum.voi	"You are number"

Prompt	File Name	Wording (Continued)
262	point.voi	“Point”
263	tddgreet.voi	*This prompt is recorded as TDD tones. It will display on a TDD device as “Press 8 on your telephone for TDD service.*”
264	mainhotl.voi	"Guest menu. To hear your new messages, press 9. To hear saved messages, press 8. To set a wake-up call, press *."
265	lsubhotl.voi	"To replay this message, press 1. To save and hear the next message, press 2. To delete this message, press 4."
266	pdl_menu.voi	"To add a member to the list, press 1. To remove a member, press 2. To hear all members on the list, press 3. To record a name for the list, press 4. Or to exit, press #."
267	pdlnmenu.voi	"To play the name, press 1. To record the name, press 2. Or to exit, press #."
268	pdlasknm.voi	"Please enter the list number."
269	pdlmemys.voi	"is a member of personal distribution list"
270	pdlmemno.voi	"is not a member of personal distribution list"
271	pdladded.voi	"has been added to personal distribution list"
272	pdlremov.voi	"has been removed from personal distribution list"
273	negative.voi	"negative"
274	pagedisp.voi	"The number which will be sent to your party's pager is"
275	askrecvr.voi	"Enter the number of the mailbox you sent the message to."
276	editmenu.voi	"To play the message, press 1. For the next message, press 2. To delete the message, press 4. Or to exit, press #."
277	edtnomsg.voi	"You have no retrievable messages in that mailbox."
278	edtnomor.voi	"You have no more retrievable messages in that mailbox."
279	msgdated.voi	"There is a message dated"
280	wakeaskh.voi	"Please enter the hour at which we should call you."
281	wakenone.voi	"There is currently no wake-up call scheduled."
282	wakechng.voi	"Press 1 if you would like to change the time."
283	wakewill.voi	"You will be called"
284	wakehere.voi	"Hello. This is your wake-up call. If you would like us to call you at the same time tomorrow, press 1."
285	loptsubf.voi	"To forward a copy of this message to someone else, press"

Prompt	File Name	Wording (Continued)
286	loptsubr.voi	"To reply to this message, press"
287	loptsubx.voi	"To speak with the sender of this message, press"
288	askfwd2.voi	“To forward this message to another box number, enter the box number. Otherwise, press #.”
289	prmpassw.voi	“Please enter the database password.”
290	prmbadpw.voi	“Your password level does not allow you to change that parameter.”
291	prmasknm.voi	“Enter the number of the parameter you wish to change, or press # to exit.”
292	prmaskvl.voi	“Enter the new value.”
293	prmasksb.voi	“Enter the item number.”
294	prmvalid.voi	“Values for that parameter must be between”
295	prmvalis.voi	“The value of parameter number”
296	prmsubpr.voi	“item number”
297	wordis.voi	“is”
298	pbxasknu.voi	“Enter the ID number of the PBX you are connecting to.”
299	pbxaskln.voi	“How many digits are there in your extension numbers?”
300	pbxsrial.voi	“If you intend to use the serial-port integration, press 1, otherwise press 2.”
301	pbxpciu.voi	“If you intend to use PCIUs, press 1, otherwise press 2.”
302	pbxaskok.voi	“Press 1 to confirm that it is OK to disconnect all calls and reconfigure your system for the new setup.”
303	pbxaskex.voi	“Enter the extension number for voice mail port”
304	supaskhr.voi	“Please enter the hour.”
305	supaskyr.voi	“Please enter the year.”
306	prmrboot.voi	“Thank-you. You must restart the PC in order for this new value to take effect.”
307	notassgn.voi	“Not assigned”
308	letter_a.voi	“A” *(The letter A)*
309	letter_b.voi	“B” *(The letter B)*
310	letter_c.voi	“C” *(The letter C)*
311	letter_d.voi	“D” *(The letter D)*
312	letter_e.voi	“E” *(The letter E)*
313	letter_f.voi	“F” *(The letter F)*
314	letter_x.voi	“X” *(The letter X)*
315	supsayti.voi	“The current time is”
316	supsayda.voi	“The current date is”

Prompt	File Name	Wording (Continued)
317	loptsubt.voi	"To reply to the sender of this message using e-mail, press" *(Windows-based systems only)*
318	newvmsg.voi	"New voice mail message" *(Windows-based systems only)*
319	newvmsgs.voi	"New voice mail messages" *(Windows-based systems only)*
320	newfmsg.voi	"New fax message" *(Windows-based systems only)*
321	newfmsgs.voi	"New fax messages" *(Windows-based systems only)*
322	newtmsg.voi	"New e-mail message" *(Windows-based systems only)*
323	newtmsgs.voi	"New e-mail messages" *(Windows-based systems only)*
324	nottsavl.voi	"There are currently no e-mail readers available, please try again later." *(Windows-based systems only)*
325	lstnmenx.voi	"Message menu. To listen to new voice messages, press 1. To listen to saved voice messages, press 2. To listen to new e-mail messages, press 3. To listen to saved e-mail messages, press 4. To listen to all new messages, press 5. To listen to all saved messages, press 6. Or to return to the main menu, press #."
326	vmoracd.voi	"For voice mail functions, press 1. To enter customer service mode, press 2. Or to exit, press #."
327	extnacd.voi	"This extension is currently being used for customer service. If you want to use this extension to open a mailbox, you must first log off from all customer service groups, then press Clear."
328	mboxacd.voi	"Your mailbox is currently in customer service mode. If you want to open your mailbox, you must first log off from all customer service groups, then press Clear."
329	massmenu.voi	"To begin mass recall, press 1. To cancel any mass recall in progress for this group box, press 2." Or, to exit, press #."
330	acdverif.voi	"This extension will be set to Customer Service mode."
331	acdmode.voi	"This extension is now in Customer Service mode. Thank you. Goodbye."
332	loptsuba.voi	"To hear the next attachment, press"
333	msgopcn1.voi	"To send this message, press"
334	msgopcn2.voi	"To replay the message, press"
335	msgopcn3.voi	"To re-record the message from the beginning, press"
336	msgopcn4.voi	"To cancel the message, press"
337	msgopcn8.voi	"To resume recording from the point where you stopped, press"

Prompt	File Name	Wording (Continued)
338	msgopcn9.voi	“To play back the last few seconds of your message, press“
339	sndspc21.voi	“For normal delivery, press“
340	sndspc22.voi	“To mark this urgent, press“
341	sndspc23.voi	“To mark this private, press”
342	badwave.voi	“This message contains an incompatible wave file”
343	badmsg.voi	“This message contains an unknown format.”
348	noaccess.voi	“I’m sorry, but I am unable to access your messages at this time. Please try again later.”
349	attach.voi	“This message includes an attachment which cannot be read to you over the telephone.”
350	askfwd3.voi	“To forward this message to another box number, enter the box number. If you do not know the box number, press *, or press # if you are finished.”
351	nxtboxd.voi	“Please enter the number of the next mailbox. If you do not know the box number, press *, or press # if you are finished.”
352	nocmtrec.voi	“There is currently no comment recorded.”
353	acdexit.voi	“This extension is no longer in customer service mode. Goodbye.”
354	vmoracdx.voi	“For voice mail functions, press 1. To exit customer service mode, press 2. Or, to exit, press #.”
355	plswait.voi	“Please wait.”
356	msgerror.voi	“I'm sorry, your message could not be retrieved in a timely fashion.”
357	msgopcn5.voi	“If you would like to be notified when your party has received this message, press 5.
358	msgopcn6.voi	“To send this message to several mailboxes, press 6.“
359	msgopcns.voi	“To schedule this message to be sent at a future time and date, press *.”
360	holdloc.voi	“Please hold while I locate your party, or you may choose from the following”
362	fmdis.voi	“Your Follow-Me feature is currently disabled.”
363	fmauto.voi	“Your Follow-Me feature is currently set to follow you automatically.”
364	fmonreq.voi	“Your Follow-Me feature is currently set to follow you only when the caller requests to.”

Prompt	File Name	Wording (Continued)
365	fmconfig.voi	"Press 1 to review the numbers in the current schedule. Press 2 to disable the Follow-Me feature. Press 3 to set the Follow-Me feature to follow you automatically. Press 4 to set the Follow-Me feature to follow you only when the caller asks to. Or press # if you are satisfied."
366	fmnum.voi	"Press 1 to hear all the numbers in the current schedule. Press 2 to add a number. Press 3 to remove a number. Or, press # if you are satisfied."
367	fmnonum.voi	"There are no numbers in the current schedule."
368	entnum.voi	"Please enter the number."
369	wasrem.voi	"has been removed"
370	wasadd.voi	"has been added"
371	featoptf.voi	"Press 1 if you would like to change the number. Press * to turn this feature on or off. Press 2 to change your Follow Me feature. Or press # if you are satisfied."
373	msgerror.voi	"I'm sorry. We could not retrieve your message in a timely fashion."
374	optnmen3.voi	"Options menu. To record your name, press 1. To record your greeting, press 2. To change your password, press 3. To change your call-transfer feature, press 4. To review messages scheduled for future delivery, press 7. To change your Personal Distribution Lists, press 8. To retrieve a message that you have already sent to another mailbox, press *. Or to return to the main menu, press #."
999	rgetnam2.voi	"At the tone, please record your name and phone number. We will use this information to contact you."
1000	nomorlst.voi	"There are no more listings in that category"
1001	rltnolst.voi	"There are no listings in that category"
1002	onefrmor.voi	"To hear the next listing, press 1. To change categories, press 2. To speak with an agent, press 3."
1003	rmainmnu.voi	"For a sample of our listings, press 1. To change categories, press 2."
1004	rsubsmnu.voi	"To hear your selections, press 1. To change categories, press 2."
1005	rgetname.voi	"At the tone, please record your name and phone number with area code. We will use this information to contact you if you request additional information during this call."

Prompt	File Name	Wording (Continued)
1006	infotogo.voi	"Thank you. We will contact you as soon as possible at the number you provided earlier. If you wish to re-record the contact information you provided earlier, press 1."
1007	rltchgok.voi	"Thank you. Those details have now been changed as requested."
1008	thereis.voi	"There is"
1009	thereare.voi	"There are"
1010	ls1match.voi	"Listing that matches your current choices"
1011	ls2match.voi	"Listings that match your current choices"
1012	alocnomo.voi	"I'm sorry, there are no free Mailboxes right now."
1013	aloccant.voi	"I'm sorry, we cannot allocate a new Mailbox right now."
1014	alocmenu.voi	"To hear this information again, press 1. For more information, press 2. Or to continue, press 3."
1015	alocnmbr.voi	"Your new Mailbox number is"
1016	alocpasw.voi	"And the password is"
1100	faxconf.voi	"Thank you. That fax will be sent when you hang up."
1101	faxcancl.voi	"That fax will not be sent."
1102	enterfax.voi	"Please enter the number of your own fax machine now."
1103	maxfaxes.voi	"I'm sorry. You have already ordered the maximum number of faxes."
1104	notfaxln.voi	"I'm sorry. This line does not have a fax board connected."
1105	faxdone.voi	"To receive your faxes now, press 1. Or to continue, press 2."
1106	faxmachn.voi	"If you are calling from a fax machine, press 1. Otherwise, press 2."
1107	enterfid.voi	"If you have an extension number which you would like to appear on the document, please enter it now."
1108	faxorder.voi	"You may order up to"
1109	faxmore.voi	"More fax document"
1110	faxesmor.voi	"More fax documents"
1111	faxpress.voi	"Please press the Start button on your fax machine and then hang up."
1112	faxnote.voi	"Please record a short description of your document."
1113	faxfail.voi	"We're sorry. We are unable to receive your document."
1114	hasfax.voi	"There are fax documents with"
1115	ofnewmsg.voi	"Of your new messages"
1116	msgisfax.voi	"This message contains a fax document."
1117	keytotag.voi	"If you would like to receive the fax document, press 7."

Prompt	File Name	Wording (Continued)
1118	nofaxavl.voi	"All fax ports are busy right now. Press 1 if you wish to hold."
1119	faxivr.voi	"If you would like us to fax you a copy of this information, press 1."

(used for sending a fax copy of information obtained via the IVR feature)

15.1 Recording System Prompts

You can record prompts in additional languages and you can re-record any system prompt to modify it as you like or to include additional options required for a particular application. (Several commonly used prompt options have been pre-recorded and are also available for you to use. See section 15.4 for more information.)

Understanding Prompt Formats

The following table identifies the recording format in which prompts (as well as box greetings, personal greetings, and messages) are stored on the VP system:

DOS-based Systems with Rhetorex Boards	DOS-based Systems with Dialogic Boards	NT/2000-based Systems
Rhet32	Oki32	PCM 11 KHZ, 8 BIT, MONO or CCITT U-LAW 8 KHZ, 8 BIT, MONO From the \VM directory, run the file ABOUT.EXE. The exact format will be identified in that file.

To re-record system prompts, you can use the prompt recording utility provided with the VP system:

VP system Type	Utility	Location	To start the utility…
DOS-based using Rhetorex voice boards	RPROMPT.EXE	\VM	Type RPROMPT then press <Enter> from the \VM directory.
DOS-based using Dialogic voice boards	VPROMPT.EXE	\VM	Type VPROMPT then press <Enter> from the \VM directory.
Windows-based using Dialogic voice boards	NTPROMPT.EXE	\VM	Double-click on the VP DATABASE icon, enter the password at the prompt, then select SYSTEM PROMPTS from the System pull-down menu.

15.1.1 USING RPROMPT AND VPROMPT (DOS-BASED SYSTEMS)

Once you start the RPROMPT or VPROMPT utility, the SYSTEM PROMPTS screen displays. For each system prompt, this screen identifies:

- The prompt's number
- A brief text description of the prompt (the full text of the prompt is provided earlier in this section)
- Whether the prompt has been recorded

As you move through each prompt field, a menu displays, allowing you to play or record the prompt. By selecting RECORD you can record the prompt via the telephone line connected to the voice processing board. To record the prompt, select RECORD, press <Enter>, and call into voice mail line 1. When voice mail answers, select RECORD and speak. To end the recording, press <Enter> again. To hear the recording, select PLAY.

The MICROPHONE field requires the use of optional hardware and a direct connection to the voice board. For additional information, see section 2.

When re-recording prompt, select PLAY to listen to the prompt before re-recording it. This allows you to hear the inflections and general tone that is appropriate for the prompt.

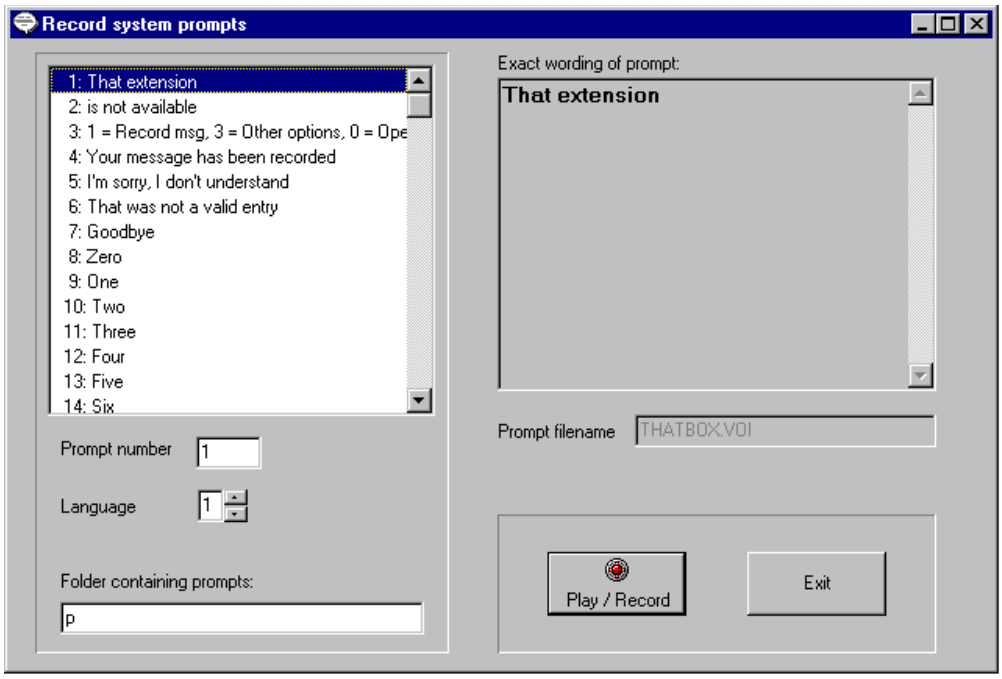
By default, each prompt exists on the VP system hard drive in a separate file in the \VM\P directory.

If you are using the multi-lingual option, record each prompt in Language 1 first, then select NEW LANGUAGE from the menu. The current language number (displayed at the top of the menu) changes to Language 2, and the Yes/No fields update to indicate which prompts have been recorded in Language 2. You can now record the prompts in the second language. If you are using more than two languages, select NEW LANGUAGE again and record the prompts in each subsequent language.

The prompts for Language 1 are stored by default in the \VM\P directory. The prompts for Languages 2 through 9 are stored in subdirectories \VM\P\L2 through \VM\P\L9 respectively.

15.1.2 USING NTPROMPT (WINDOWS-BASED SYSTEMS)

Once you start the NTPROMPT utility, the RECORD SYSTEM PROMPTS screen displays.



For each system prompt, this screen identifies:

- The prompt's number
- A brief text description of the prompt
- The complete text of the prompt (shown on the right side of the screen)
- A number indicating a language to which the prompt is associated (a complete set of prompts for up to 9 languages can be recorded on the system)
- The folder containing the prompt file
- The prompt filename
- Whether the prompt has been recorded (an existing recording is signified by a red light displaying on the Play/Record button)

You can play or record a prompt by clicking on the Play/Record button, then using the controls on the Sound Recorder dialog box. At the lower-right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See information presented later in this section for details on using the Sound Recorder dialog box.

When re-recording prompt, play the prompt before re-recording it. This allows you to hear the inflections and general tone that is appropriate for the prompt.

Each prompt exists on the VP system hard drive in a separate file in the \VM\P directory.

If you are using the multi-lingual option, record each prompt in Language 1 first, then select Language 2. You can now record the prompts in the second language. If you are using more than two languages, continue to select the next language number in the series and record the prompts in each subsequent language.

The prompts for Language 1 are stored by default in the \VM\P directory. The prompts for Languages 2 through 9 are stored in subdirectories \VM\P\L2 through \VM\P\L9 respectively.

15.2 Using the Sound Recorder Dialog Box (Windows-based Systems)

The Sound Recorder is a utility provided with Windows that allows you to easily record and manipulate WAV files, which is the file type used to store prompts, greetings, and messages on Windows-based systems. Though the Sound Recorder includes a sophisticated set of recording manipulation options, you need only be familiar with the utility's fundamental record and playback features.

To record a prompt, name, or greeting, click on the circle button in the lower-right of the Sound Recorder dialog box and speak into the microphone connected to the PC. Click on the rectangle button to the left of the circle button to end the recording. Click on the triangle button to the left of the rectangle button to play the recording. For additional information on using the features available with the Sound Recorder, consult the utility's online help.

Note:	**Before making any recordings using the Sound Recorder dialog box, you must set up the proper audio recording properties.** Do this by selecting the Audio Properties option from the Edit menu on the Sound Recorder dialog box. On the Audio tab that displays, select the Customize button. In the FORMAT field, select CCITT U-LAW. In the ATTRIBUTES field, select 8 KHZ, 8 BIT, MONO. Click the Save As button, type the word VOICEMAIL in the field that displays, then select the OK button. Select the OK button again to exit the box. The PREFERRED QUALITY field on the Audio tab now reflects the VOICEMAIL setting. Select the OK button to close the Audio Properties box and return to the Sound Recorder dialog box.

Note that the Sound Recorder utility requires a sound card and microphone be installed in the PC from which the Sound Recorder is run. Most Windows-based systems are shipped with this equipment pre-installed.

For information on installing or using a sound card and microphone on a Windows system, consult the Windows documentation.

15.3 Preventing Certain Prompts from Playing

In some circumstances, you may want a particular prompt to never play on the VP system. Use the procedure provided below to omit a prompt on a system-wide basis. Before you proceed, however, review the following points regarding the VP system's prompts:

By adjusting the OTHER CUSTOMIZATIONS screen (DOS-based systems) / GENERAL INFORMATION screen (Windows-based systems), you can prevent prompt 97 from playing when a WAIT FOR ANSWER call is answered.

For individual mailboxes, you can select what callers are to hear just before they are transferred to an extension by using the **@** and **&** symbols in the FIRST NAME field (see section 5.5).

If you want to permanently prevent a prompt from playing, do not delete the prompt's file. If you do, the system will generate an error message. Instead, substitute an empty voice file. The VP system still locates and plays the file, but since there is no prompt recorded, this process takes less than 1 second.

To omit a prompt on a system-wide basis:

Shut down the VP system if it is currently running.

Change to the directory where system prompts are stored. By default, this is the VM\P sub-directory.

To store the existing prompt for future use, rename the existing prompt's file with a different extension. For example, to use a command prompt to re-name prompt number 155 with a new extension .SAV, from the \VM\P directory type REN GOXFER.VOI GOXFER.SAV then press <Enter>.

Create a new file with the original name GOXFER.VOI. Do this from a command prompt, for example, by typing EDIT GOOXFER.VOI then pressing <Enter>.

On the blank screen that displays enter two letters, for example XX (the file cannot be totally empty), then press <Enter>. Save the file by pressing <Alt-F>, then <X>, then <Enter>. Return to the \VM directory (if you used a command prompt, type CD.. then press <Enter>).

Re-start the VP system.

15.4 Using Pre-Recorded Prompt Options

The prompts supplied with the VP system have been selected to conform with the majority of new installation requirements. Available options for prompt phrase contents are shown below. These prompt options have been pre-recorded and are stored in the prompts subdirectory on the VP system. By default this is \VM\P. Each prompt option uses the same filename as the default, but has a different extension (.OP1, .OP2, etc.).

To copy a modified prompt to the active system:

If the system is a DOS-based VP system, shut it down if it is currently running. For procedures, see section 2.5.

Locate the text you want to use in the following table and make a note of the filename.

Copy the file over the prompt with the .VOI file extension. (You may want to first rename the .VOI prompt an extension .OLD, so if you ever want to revert back to it, the prompt is still available.) For example, on a DOS-based VP system, to replace the existing prompt 3 with MBOXMENU.OP1, access a command prompt and type:

```
COPY \VM\P\MBOXMENU.OP1 \VM\P\MBOXMENU.VOI
```

then press <Enter>.

When you finish modifying prompts, re-start the VP system.

TABLE 2.

Prompt	Filename	Wording
1	thatbox.op1	That guest…
3	mboxmenu.op1	“If you would like to leave a message, press 1. If you would like to try another extension, press 3. To have your call announced over our P.A. system, press 5. Or, to speak to an operator, press 0."
65	mainmenu.op1	"Main menu. To listen to your messages, press 1. To send a message, press 2. To change your options, press 3. To change languages, press 5. Or to exit, press #."
65	mainmenu.op2	“Main menu. To listen to your messages, press 1. To send a message, press 2. To change your options, press 3. For supervisor functions, press 6. Or to exit, press #."
65	mainmenu.op3	"Main menu. To listen to your messages, press 1. To send a message, press 2. To change your options, press 3. To input a fax document, press 7. Or to exit, press #."
65	mainmenu.op4	"Main menu. To listen to your messages, press 1. To send a message, press 2. To change your options, press 3. To change languages, press 5. To input a fax document, press 7. Or to exit, press #."
65	mainmenu.op5	"Main menu. To listen to your messages, press 1. To send a message, press 2. To change your options, press 3. For supervisor functions, press 6 To input a fax document, press 7. Or to exit, press #."
65	mainmenu.op6	"Main menu. To listen to your messages, press 1. To send a message, press 2. To change your options, press 3. Or to exit, press #."

TABLE 2.

Prompt	Filename	Wording (Continued)
66	cmainmnu.op1	"Main menu. To listen to your messages, press 1. To send a message, press 2. To change languages, press 5. Or to exit, press #."
67	mainmenx.op1	"Main menu. To listen to your messages, press 1. To send a message, press 2. To change your options, press 3. To listen to questionnaire answers, press 4. To change languages, press 5. Or to exit, press #."
67	mainmenx.op2	"Main menu. To listen to your messages, press 1. To send a message, press 2. To change your options, press 3. To listen to questionnaire answers, press 4. For supervisor functions, press 6. Or to exit, press #."
96	xplshold.op1	"Please hold while I transfer your call."
99	xstraccp.op1	"Press 1 to take the call, or press 2 if you would like me to take a message."
125	msgoptin.op1	"To send this message, press 1. To review the message, press 2. To re-record the message from the beginning, press 3. To cancel the message, press 4. To resume recording from the point where you stopped, press 8. To play back the last few seconds of your message, press 9."
131	dirpres1.op1	"If this is the guest you want, press 1, or press 2 for the next name. If you would like to try a different spelling, press 3, or to exit from the directory, press #."
131	dirpres1.op1	If this is the guest you want, press 1.
139	hldoptn.op6	"Please remain on the line and your call will be answered as soon as possible.”
139	hldoptn.op1	If you would prefer to leave a message, press 1.

TABLE 2.

Prompt	Filename	Wording (Continued)
165	msgopcnf.op1	"To send this message, press 1. To replay the message, press 2. To re-record the message from the beginning, press 3. To cancel the message, press 4. If you would like to be notified when your party has received this message, press 5. To send this message to several mailboxes, press 6. To resume recording from the point where you stopped, press 8. To play back the last few seconds of your message, press 9. To schedule this message to be sent at a future time and date, press *."
199	tutgrt.op1	If you are not able to answer your phone, I will play your personal greeting to the caller. Your greeting should sound something like this: 'Hello, this is Mary. I'm sorry I cannot take your call right now. If you would like to leave me a message, press 1.' Once you have recorded your greeting, you can change it at any time. Press 1 if you would like to record your personal greeting now. Otherwise, press 2."
201	tutname.op1	There are times when I need to say your name. For example, when the system is about to transfer a call to your room, the caller will hear: 'Please hold while I transfer your call to Mary Jones.' I need you to record your name. Press 1 if you would like to record your name now. Otherwise, press 2."
203	tutpsw.op1	If you wish, you can set a private password to protect your privacy and allow you to retrieve your messages while away from the hotel. You will be asked to enter this password each time you open your mailbox. If you would like to set your private password now, press 1. Otherwise, press 2."
228	spelname.op1	"Please spell out the first 3 letters of the first name."
232	tutgetdr.op1	"Using your telephone keypad, please spell the first 3 letters of your first name."
260	mboxmen2.op1	“If you would like to leave a message, press 1. If you would like to have your party paged, press 2. If you would like to try another extension, press 3. To have your call announced over our P.A. system, press 5. Or, to speak to an operator, press 0."

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16. UNDERSTANDING FILE ORGANIZATION

The VP system uses files to store its database information, voice recordings, call log, and other data. When you install the VP system, five new directories are created: \VM, \VM\LOG, \VM\M, \VM\P, and \VM\T. Directory \VM\DATA is created if you use the data entry feature, \VM\FAXMAIL is created if you use the optional fax module, and \VM\TEXT is created if you use unified messaging.

Though you can elect to house VP system files in directories other than the default structure (shown below), it is strongly recommended that you retain the default structure. Doing so eases system maintenance tasks and facilitates technical support activities, should you require assistance.

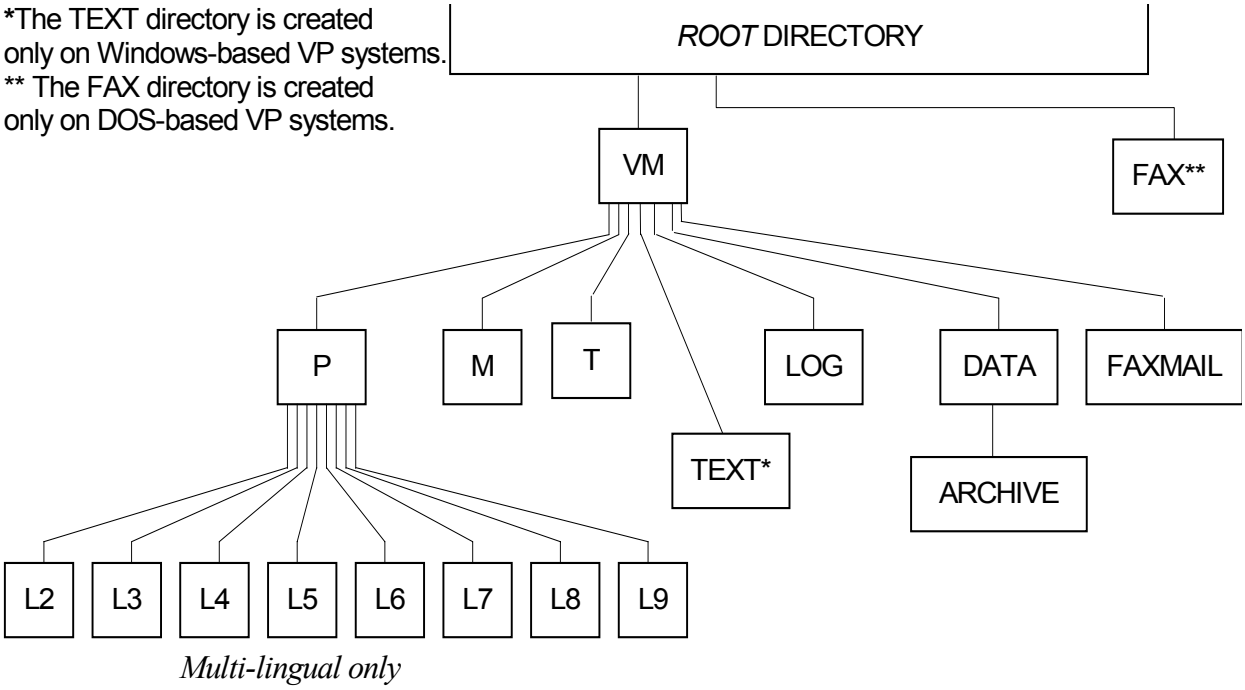

Figure 3-1 Default VP system Directory Structure

P Directory

The \P directory stores the pre-recorded system prompts. Each prompt is contained in a separate file. All active prompt files end with the extension *.VOI*. Optional variations are available. These prompts have *.OPx* extensions. For a complete list of all the system prompts and their filenames, see section 15.

L2 - L9 Directories

If you use the multi-lingual feature, directories \L2 through \L9 store the Language 2 through Language 9 prompts, respectively. These directories are automatically created as needed.

M Directory

The \M directory stores the voice files containing the recorded box greetings, recorded names, Question box questions and answers, and mailbox messages.

If you are using the optional Fax Retrieval module, the \M directory is also the fax document storage location. If you are using the optional Talking Classifieds module and you indicated the system is to record callers' names (specified using the TCNAME parameter in the VM.CFG file), the \ M directory is also the storage location for those files. Files are stored as follows:

File Contents	Filename	Key
Mailbox messages on DOS-based systems	mgzzxx.mmm Example for 3-digit mailbox 413: MG000413.001	xxis the Mailbox number (may be up to **4** digits) zzis the number of leading zeros necessary for an 8-character filename mmmis the message number
Mailbox messages on Windows-based systems	mgzzxx.mmm Example for 5-digit mailbox 21413: MG000021413.001	xxis the Mailbox number (may be up to **9** digits) zzis the number of leading zeros necessary for an 11-character filename mmmis the message number
Group box messages on DOS-based systems	gpzzxx.mmm	xxis the Group box number (may be up to **4** digits) zzis the number of leading zeros necessary for an 8-character filename mmmis the message number
Group box messages on Windows-based systems	gpzzxx.mmm	xxis the Group box number (may be up to **9** digits) zzis the number of leading zeros necessary for an 11-character filename mmmis the message number
Question box answers on DOS-based systems	anzzqqxx.mmm	xxis the Question box number (may be up to **4** digits) qqis the question number (first answer is number 0) zzis the number of leading zeros necessary for an 8-character filename mmmis the answer-set number *(see Notes that follow for more information on Question box answers)*
Question box answers on Windows-based systems	anzzqqxx.mmm	xxis the Question box number (may be up to **9** digits) qqis the question number (first answer is number 0) zzis the number of leading zeros necessary for an 11-character filename mmmis the answer-set number *(see Notes that follow for more information on Question box answers)*
Question box questions on DOS-based systems	qnxzzbb.qqq	xis the language number zzis the number of leading zeros necessary for an 8-character filename bbis the Question box number (may be up to **4** digits) qqqis the question number (first question is number 0)
Question box questions on Windows-based systems	qnxzzbb.qqq	xis the language number zzis the number of leading zeros necessary for an 11-character filename bbis the Question box number (may be up to **9** digits) qqqis the question number (first question is number 0)

File Contents	Filename	Key (Continued)
Box greetings on DOS-based systems	gtnnzzxx.gry	xxis the Mailbox number (may be up to **4** digits) zzis the number of leading zeros necessary for an 8-character filename nnis the greeting number (0 is the default greeting) yis the language number (or 'T' for language 1. The file extension is always .GRT if you are not using the multi-lingual option)
Box greetings on Windows-based systems	gtnnzzxx.gry	xxis the box number (may be up to **9** digits for Mailboxes) zzis the number of leading zeros necessary for an 11-character filename nnis the greeting number (0 is the default greeting) yis the language number (or 'T' for language 1. The file extension is always .GRT if you are not using the multi-lingual option.)
Box names on DOS-based systems	nmzzxx.nam	xxis the Mailbox number (may be up to **4** digits) zzis the number of leading zeros necessary for an 8-character filename
Box names on Windows-based systems	nmzzxx.nam	xxis the box number (may be up to **9** digits for Mailboxes) zzis the number of leading zeros necessary for an 11-character filename
Talking Classifieds caller's name	name0xxx.tc	xxxis the call number, as referenced in the CALL HISTORY screen
Documents for Fax Retrieval on DOS-based systems	fxzzxx.fax	xxis the number of the Fax box containing this document (may be up to **4** digits) zzis the number of leading zeros necessary for an 8-character filename
Documents for Fax Retrieval on Windows-based systems	fxzzxx.fax	xxis the number of the Fax box containing this document (may be up to **9** digits) zzis the number of leading zeros necessary for an 11-character filename
ACD box queue announcements on DOS-based systems	acdqzzxx.qqy	xxis the ACD box number (may be up to **4** digits) zzis the number of leading zeros necessary for an 8-character filename qis the announcement number yis the language number
ACD box queue announcements on Windows-based systems	acdqzzxx.qqy	xxis the ACD box number (may be up to **9** digits) zzis the number of leading zeros necessary for an 11-character filename qis the announcement number yis the language number
Mailbox messages scheduled for future delivery	schdxxxx.msg	xxxxis the position of the message in the future delivery queue.

Notes on Question Box Answers:

If you are using the data-entry feature, the answers entered by callers are stored in a data file in the \DATA directory. Otherwise, the answer to each question in a Question box is stored in a separate file. Since each question can have an answer-type of digits or voice, the answer stored in the answer file (ANqqxxxx.nnn) may be in the form of digitized voice or ASCII digits. There is a special answer file

named AN99xxxx.nnn associated with each set of answers. This file indicates which answers within the answer set are *digits*, and which are *voice*. The file contains one byte for each answer. If the byte is 0, the answer type is voice. If the byte is 1, the answer-type is digits. If the answer-type is digits, then the digits are stored in the file as ASCII digits, terminated with a 00 byte.

For example, assume that Question box 4112 has 3 questions recorded in it. Question 1 has an answer type of *voice*, while questions 2 and 3 have answer types of *digits*. Also assume that two callers have answered the questions in the box. The following files will exist in the \M sub-directory:

Files	Contents
an004112.000	Answer to question 1, stored as digitized voice.
an014112.000	Answer to question 2, stored as ASCII digits followed by a zero.
an024112.000	Answer to question 3, stored as ASCII digits.
an994112.000	Information on the first answer set, indicating that question 1 has an answer-type of *voice*, while questions 2 and 3 have answer-types of *digits* (the file contents are 00,01,01).
an004112.001 an014112.001 an024112.001 an994112.001	Information on the second answer set (provided by the second caller). The format is the same as that for the first answer-set.

T Directory

This directory is currently not used.

TEXT Directory

On Windows-based systems, if you use unified messaging, the \TEXT directory stores the text of e-mail messages that are received in the Outlook Inbox.

LOG Directory

If you specify that you want the VP system to store its call log to a file, this directory stores the daily log, up to one year's worth of calls. The call log for each day is stored in a separate file called *mmdd*.LOG where *mm* and *dd* represent the month and day of the log, respectively. For example, the call log for March 24 is stored in the file 0324.LOG.

You can select where to record the call log files on the GENERAL INFORMATION screen.

DATA Directory

The VP system creates the \DATA directory only if you use the data entry feature. The directory stores the files containing data entered by the callers in response to Question box questions. Note that the data entry feature records *only* answers entered as DTMF digits (voice answers are not permitted in data entry Question boxes).

FAX Directory

On DOS-based systems, if you use any of the Fax optional modules, the \FAX directory stores the necessary driver and operating files for the fax boards. The \FAX directory may contain several sub-directories, depending on the system configuration.

FAXMAIL Directory

If you use the optional FaxMail module, incoming fax messages are stored in the \FAXMAIL subdirectory using filenames in the format MG00xxxx.yyy, where *xxxx* is the mailbox number receiving the FaxMail document and *yyy* is the FaxMail message number. This is the same format as a voice message, except this file is a PCX graphics (DOS-based systems) or TIF graphics (Windows-based systems) file instead of a digitized voice file.

VM directory

The \VM directory contains all the other files the VP system runs. The most critical files are:

Filename	Description
*.DVM	VP system database files (see next section for details).
*.HLP	DOS-based systems only: Files containing HELP information, accessed by pressing <F1>.
boxdisplay.exe	Windows-based systems only: Application that displays high-level box setup information.
d40drv.exe genload.exe genboot.* dialogic.cfg	DOS-based systems only: Contain operating and driver information for Dialogic voice boards.
configur.exe accucall.exe	DOS-based systems only: Contain operating and driver information for Rhetorex voice boards.
dba.exe	Windows-based systems only: Database Administrator application.
dba.hlp	Windows-based systems only: Application that provides online help.
dconvert.exe	Windows-based systems only: File conversion utility to move information from DOS-based systems to Windows-based systems.
everkey 2.19 (linescan.exe)	Windows-based systems only: Coordinates communication with the Authorization key.
govm.bat	DOS-based systems only: Starts all components of the VP system program.
kv_ftp_server.exe	Windows-based systems only: Service used with VCM that transfers .WAV files to VCM when it requests them.
kvdbserver.exe	Windows-based systems only: Service that reads from and writes to the voice mail .DVM database files.
makebox.exe	Box creation utility.
menu.fil	DOS-based systems only: File containing screen information.
msgsched.q	File contains the delivery schedule for future delivery messages stored in queue.
netreg.exe	Windows-based systems only: File that invokes utility used to create NETREG.REG file containing registry information used to create voice mailbox address in the Personal Address book on client PCs.
ntprompt.exe	Windows-based systems only: Prompt recording utility program for Windows-based systems with Dialogic boards.
ntrenew.exe	Windows-based systems only: Code entered to activate optional modules or add ports.

Filename	Description (Continued)
numlines.txt	Contains the code number authorizing the software key for the number of lines in the system.
panel.fil	DOS-based systems only: File containing screen information.
pbxsetup.exe	Windows-based systems only: Switch integration utility program.
pec.exe	Windows-based systems only: Service used to communicate with the e-mail server for unified messaging.
renew.exe	DOS-based systems: Code entered to activate optional modules.
rhetdrv.exe voicecnf.exe config	DOS-based systems only: Contain operating and driver information for Rhetorex voice boards.
rmail.exe	DOS-based systems only: Starts some components of VP system program (Rhetorex voice board version).
RPROMPT.EXE	DOS-based systems only: Prompt recording utility program for Rhetorex-based systems.
switches.txt	DOS-based systems only: Contains the code number authorizing the software key for the standard VP system and optional modules.
verbfaxdll.dll	Windows-based systems only: Allows communication with GammaLink boards.
viewer.exe	Windows-based systems only: Application that displays port activity.
vmail.exe	DOS-based systems only: Starts some components of the VP system program (Dialogic voice board version).
vmservice.exe	Windows-based systems only: Service that exchanges data with primarily the Voice Mail Viewer application.
vmwin.exe	Windows-based systems only: The VP system program.
vprompt.exe	DOS-based systems only: Prompt recording utility program for Dialogic-based systems.

DVM Database Files

All of the system's database information is stored in files with the .DVM extension. The following table shows the filenames and a description of each file's contents:

Filename	Description
bdtabase.dvm	Contains information on all system boxes (mailbox, Routing box, Question box, etc.)
sdtabase.dvm	Contains all information in the System Information screens except for the line information.
ldtabase.dvm	Contains all data from the LINE INFORMATION screen.
mdtabase.dvm	Contains information about voice message files in mailboxes and Question boxes. These are not the actual voice files.
cdtabase.dvm	Contains the call-count information, which is displayed next to each line in the LINE STATUS screen (DOS-based systems) / LINE ACTIVITY screen (Windows-based systems).
date.dvm	If the system is powered down, this file keeps the date when the power-down occurred. Activities that are missed due to the power-down are usually executed upon power-up.

17. UNDERSTANDING VP SYSTEM INTEGRATION

Section 2 gives an overview of how to connect the VP system to the telephone system. This section goes into more detail on integrating the voice mail and phone system so they work together.

> **Note**: If the phone system you are working with was listed when you ran the Setup program as described in section 3, you can skip this section and review it only if you experience an integration problem.

17.1 Detecting Hang-Up

The VP system continually monitors active lines for hang-ups, so it can release the lines as soon as possible. If a hang-up is not detected, the line remains in use for several seconds after the caller hangs up. During this time, the system cannot use the line to perform other call processing tasks.

The are several ways to detect that the caller has gone on-hook:

- Detecting breaks in line current
- Detecting a specific touch-tone digit sequence from the host, signaling that the other party has disconnected
- Detecting call progress tones while recording or playing messages, greetings etc. (including dial tone)
- Absence of touch-tone when one is requested
- Absence of voice when it is requested
- Detecting a period of silence while the VP system is recording.

Several of these hang-up indicators is described in detail below.

Break in Line Current

When the host system sends a disconnect signal to the VP system, it is usually a break or reversal in the line current. Not all Central Offices (COs) or key systems provide this type of disconnect signal. It is, however, the most reliable form of disconnect. If you are in doubt about whether the telephone system can provide this type of signal, consult the phone system documentation. Even if a system is currently unable to provide this feature, it may be possible to program it to do so.

Disconnect Digit Sequence

Some telephone systems send a sequence of touch-tone digits to the VP system to signal that the calling party has disconnected. You can set up the system to respond to this digit sequence by setting the DISCONNECT DIGIT SEQUENCE field to the appropriate value on the TECHNICAL INFORMATION screen (DOS-based systems) / PBX INFORMATION screen (Windows-based systems).

> **Note**: If you are using Dialogic boards, the disconnect digit sequence can be only one-digit long.

Call Progress Tones

If the system is recording a message, the presence of dial tone, busy tone, etc. on the line is interpreted as the caller having disconnected. Presence of dial tone automatically triggers a disconnect by the VP system. If the telephone system generates an interrupted tone to indicate disconnect (busy tone, fast busy, error tone, etc.), you must program the voice processing board to detect this tone as a hang-up indication.

Absence of Touch-Tones

When a call is routed through various Routing boxes, the caller may hang up at any time without being detected. To ensure a line does not remain in use longer than necessary, program each Routing box so, if no digits are dialed by a caller, the VP system drops the call after a few seconds. Do this by setting the field IF NO DIGITS DIALED to HANG UP. Be advised, however, that because the system may receive calls from callers using rotary phones (which cannot generate touch-tones), the initial box answering each line should be set up to use the voice detection feature (see section 5.7).

Hint: Rather than hang up immediately if no digits are dialed in a Routing box, it may be more acceptable to route the call to another Routing box that asks the caller to press a key to continue. If no digit is dialed within this box, the VP system can drop the call. Routing the call this way gives the caller another chance to continue, in case he/she was confused or distracted. If the VP system detects a digit, it can then continue processing the call by routing it on to another box.

17.2 Integrating with PBXs

The single most important consideration when connecting the VP system to the telephone system is whether the telephone system provides voice mail integration using either *in-band* or *out-of-band* signaling. There are several programming decisions you must make based on this information, and the VP system will not operate properly without specific programming.

Out-of-Band Signaling

The VP system can integrate with any telephone system using out-of-band signaling, provided the signaling adheres to industry standard Simplified Message Desk Interface (SMDI) protocol. Out-of-band signaling via SMDI requires special optional VP system software, and documentation on this is provided with the software.

In-Band Signaling

In-band signaling consists of standard DTMF tones (0 - 9 and A - D) that are sent by the telephone system immediately after the VP system goes off-hook to answer a call. These signals fall into three main categories:

- Station Identifier Digits
- Reason Codes
- C.O. Line (Trunk) Identifier Digits

If any of the above types of in-band signaling are used, you must program the VP system to provide an *initial pause*. This is a short time period, usually 1 or 2 seconds, between the time the VP system answers a call by going off-hook and the beginning of the initial greeting. See section 4 for information on programming the initial pause.

Once you set up the initial pause “window” for the various in-band signals, you must determine in what cases the signals are sent and how the VP system is to treat them.

Station Identifier Digits

Station identifier digits are sent to the VP system in several circumstances. If the system transfers a call to a busy or a ring-no-answer station and the TRANSFER TYPE field on the MAILBOX screen for the mailbox is set to BLIND or WAIT FOR ANSWER, the telephone system must return the unanswered call to the VP system and provide in-band station identifier digits to inform the VP system from what station the call is returning (for more information, see section 5.5).

Station identifier digits are also sent when one station within the telephone system calls another station (an internal or "intercom" call) and that party is either using or away from the phone. If the calling party is to have access to the called party’s mailbox to leave a message, the called party’s phone must be set to forward on busy and/or ring-no-answer to the VP system *and* to provide station identifier digits. Without the station ID’s, the calling party does not receive the personal greeting of the called party, but the main greeting instead.

Station identifier digits are also used with direct calls. A direct call is one made from the telephone system to the VP system by a mailbox owner who wants to access his/her mailbox. A direct call may be made by dialing the number of the voice mail hunt group or, on some phone systems, by using a DSS or Auto Log-on button. When a mailbox owner places a direct call, some telephone system automatically send the caller’s extension number and also may send additional digits to enable auto log-on. These additional digits fall into a category called *Reason Codes*.

Reason Codes

Some telephone systems send additional digits along with extension numbers when a call is forwarded to the VP system. These additional digits are called *Reason codes* because they explain why the call has been sent to the VP system. The terminology used by each telephone system varies, but the most common reasons for a call to be sent to voice mail are:

- Forwarded on no-answer
- Forwarded on busy
- Forwarded all calls
- Direct call
- Message retrieval (auto log-on)
- Recall

These Reason codes may be sent before or after the station identifier digit. Sometimes the codes and their placement are fixed by the telephone system, and sometimes you can make modifications. Not all telephone systems have the ability to send Reason codes.

C.O. Line Identifier Digits

C.O. line identifier digits are used only in special cases where the VP system is being used as an auto attendant and different C.O. lines must be answered with different initial greetings. If you are not using the auto attendant feature or if the auto attendant answers every line with the same initial greeting, the C.O. identifier digits are *not* needed and should be disabled within the telephone system. See section 7.13 for more information.

Using Translation File TRANS.TXT

It is usually necessary to build a DTMF tone translation table. This table is located in a text file called TRANS.TXT in the \VM directory. The number and type of entries required in this table varies depending on the telephone system and on the requirements of the installation. A complete description of the digit translation feature is found in section 7.13.

> **Note**: If the VP system is not properly processing calls involving in-band DTMF tones received during the initial pause, it is usually because the TRANS.TXT file has not been built correctly. See section 7.13.

17.3 Interfacing with PBXs without Voice Mail Integration

If the telephone system does *not* have voice mail integration capabilities, the VP system can still provide excellent quality auto attendant and voice mail service with just a few limitations. When using auto attendant, every call transfer must be monitored for ringing, busy, and answer (refer to section 5.5 for information on specifying call transfer types). This means the VP system's ports must handle more of the call transfer process and devote more time to the process. If the telephone system is handling a high volume of calls, you may need more ports than would be necessary with full integration.

Because without full integration you must use certain call transfer types, the call transfer process takes a few seconds longer from the time the VP system first answers an incoming call to the time it is successfully transferred to the called party. Again, this is because the VP system must monitor each step of the call to insure the called party has answered the call (without in-band signaling, the telephone system cannot automatically return a ring-no-answer call to the called party's mailbox).

Without full voice mail integration, internal ("intercom") calls to busy or ring-no-answer stations *cannot* be automatically forwarded to a mailbox owner's personal greeting. Also, auto log-on is usually not available unless the telephone system provides user-programmable intercom speed dialing.

Call Progress Tone Detection

For the VP system to properly process calls, it must be able to recognize certain *call progress tones*, such as ringing tone, busy tone, fast busy (or re-order) tone, etc. This tone recognition is a function of the voice processing board.

The VP system software includes a default tone recognition program that usually functions well if the telephone system uses industry standard call progress tones. If, however, the telephone system has non-standard tones or tones in addition to those mentioned above, you need to teach the voice board to recognize the tones.

Included with the VP system software is a utility program designed to perform this function. This program instructs the voice board to place calls to numbers on the telephone system you select. By doing so, the board learns to recognize the frequency and cadence of certain tones (such as the tones emitted when a call is placed to a ringing phone, to a busy phone, to a phone in Do-Not-Disturb mode, etc.).

See section 13 for complete instructions on running the call progress tone detection program for the model of voice processing board in the system.

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18. SYSTEM ERROR MESSAGES

This section lists all the system error messages generated by the VP system. When an error message displays on the screen, it is also written it to a log file called ERROR.LOG.

> **Note:** To check for file corruption (an action suggested if you encounter several of the error messages discussed below), run a disk maintenance utility. On DOS-based systems, use SCANDISK or CHKDSK. On Windows systems, use the DISKEEPER program. For more information on using disk maintenance programs, refer to section 21.

0101 Cannot open softkey definitions file “<t>”

(For systems with LCD / soft-key integration only.) The VP system tried to open the file that defines the messages to be displayed on the caller’s telephone. It was unable to find the file. Copy the file from the VP system CD or diskettes.

0102 Error <y> on line <x> of softkey definitions file <t>

(For systems with LCD / soft-key integration only.) The VP system tried to read the file that defines the messages to be displayed on the caller’s telephone. It found an error in the file. Copy the file from the VP system CD or diskettes.

0201 Mailbox <x> in invalid state

This is an internal error. If the problem persists, contact technical support.

0202 Cannot create batch file “<t>” for setup

While using the teleparameter feature to configure the system to work with a specific PBX, the VP system was unable to create an internal file that it needs. Make sure the hard disk is not full. If a file of the same name already exists, delete it and try again.

0301 Mailbox <x> in invalid state

This is an internal error. If the problem persists, contact technical support.

0302 Cannot open parameter file “<t>”

The VP system was unable to open the file that contains information it requires for the teleparameter feature. Copy the file from the VP system CD or diskettes.

0303 Error <x> in parameter file (<t>)

While reading the file that contains information it requires for the teleparameter feature, the VP system encountered an error. The file is probably corrupt. Copy the file from the VP system CD or diskettes.

0401 Read Error is <x> Reported from Message Database (Box <y>)

This error is encountered while reading the file MDTABASE.DVM, containing information on the messages held in each mailbox. If the problem persists, check the hard drive for errors. If you do not have a backup, delete the file, and run MSGAUDIT to allow the VP system to rebuild it.

0402 Number of <t> Messages Went to <y> For Box <x>

While updating the count of messages for the specified box, the VP system realized that the count was not valid. The VP system fixed the problem automatically, so no action is required.

0601 Unknown Box-Type (<x>) in Database

During initialization, the VP system found bad data in the box database file (BDTABASE.DVM). This is normally due to disk problems. Run the SCANDB utility to delete all invalid boxes.

0602 Cannot Open Database-Display Window

The VP system was unable to display the database on the screen. This is normally due to a shortage of memory.

0603 Cannot Open File <t>

The VP system was unable to open the specified file. Check that the FILES statement in the CONFIG.SYS file is set to at least 40 (FILES=40).

0701 Cannot Open History File <t>

The VP system was unable to prepare a Talking Classifieds report, as it could not find the file containing the call history information. Make sure the file is on the disk.

0801 Attempt to Delete Box <x> from Empty List

An internal error occurred while deleting a box. Exit from the VP system to DOS, and reset the computer. If the problem persists, contact technical support.

0802 Unable to Find Box <x> on List, for Deletion

An internal error occurred while deleting a box. Exit from the VP system to DOS, and reset the computer. If the problem persists, contact technical support.

0901 Cannot Update Telemarketing Table for Box <x>

This error is encountered while attempting to update internal tables for the telemarketing feature. If the error repeats, exit to DOS, and restart the program.

0902 Internal Error Number <x>

This is an internal logic error. Report this problem to technical support.

0904 Cannot Delete Box <x>

This error is encountered while attempting to delete the specified box. You cannot delete reserved system boxes (those numbered between 9900 and 9999). Exit to DOS, and try the operation again.

0905 Invalid Database Modification Request (<x>) for Box <y>

The VP system was unable to process a request to modify the database. This error occurs only if the VP system is operating in a multitasking environment, such as DESQVIEW.

0906 Cannot Incorporate Box <x> into Database

The VP system was unable to process a request to modify the database. This error occurs only if the VP system is operating in a multitasking environment, such as DESQVIEW.

0908 Cannot Create Question Box Directory "<y>"

The VP system was unable to create the DOS directories required while adding a Question box to the database.

0909 Error <y> Creating Message-Info Buffer for Box <x>

While adding the specified box to the database, the VP system was unable to allocate space in the message-information file MDTABASE.DVM. Exit to DOS, and try the operation again. Make sure the file is not corrupted and is not write-protected.

0913 Cannot Read System Database File

An error occurred while the VP system was attempting to read the database file SDTABASE.DVM. Exit to DOS, and start the VP system again. If the problem persists, check the hard drive for problems.

0914 AUDIT Cannot Fix Box Information for Box <x>

During its automatic audit of the database, the VP system found some inconsistencies in the information relating to the specified box. In this case, the inconsistencies were of such a nature that the VP system was unable to automatically fix it. Check the box yourself, for any obvious problems. If the problem persists, delete the box, and add it again.

0915 Invalid Box-Type (<y>) for Box <x> (Position <t>)

While accessing the database, the VP system encountered a box whose type (Mailbox, Routing, Question, etc.) was not valid. Exit to DOS, and run the program again. If the problem persists, delete the box, if possible. If you cannot delete the box using the VP system program, try deleting it using the SCANDB utility provided (from the DOS command line, type `SCANDB -D`).

0917 AUDIT Had to Adjust Box <x> in Database

While performing its automatic audit of the database, the VP system found some inconsistencies relating to the specified box. The VP system was able to fix this error automatically. No further action is required.

0923 Cannot Create Call-History File "<t>"

The VP system maintains a file of information about recent calls to the Talking Classifieds database. During start-up, the VP system checks to make sure the file exists. If it does not exist, the VP system attempts to create it. This error message means that the VP system was unable to create the file. Check the hard drive. Make sure it is not full. Run the program again, and watch for errors.

0924 Cannot Create Telemarketing Control File "<t>"

The VP system maintains files of information about the progress of telemarketing calls—one file per Outbound Telemarketing box. During start-up, the VP system checks to make sure the files exist. If one does not exist, the VP system attempts to create it. This error message means that the VP system was unable to create the file. Check the hard drive. Make sure it is not full. Run the program again, and watch for errors.

0926 Cannot Add Box to Database - Too Many Boxes

This error is encountered while attempting to add the specified box to the database. If you are running the demonstration program, the VP system allows a maximum of 25 boxes in the database. If you are not running the demonstration program, exit to DOS and try again.

0928 This Version is Limited to <x> Boxes

This error is encountered while attempting to add the specified box to the database. You are running a version of the program that allows only the specified number of boxes.

0929 Cannot Delete - This Box Owns Question Box <x>

You are attempting to delete a mailbox that is the owner of at least one Question box. You should assign another owner to the Question box, or delete the Question box before deleting this mailbox.

0930 Warning: Had to Add System Box <x> to Database

The VP system requires certain reserved system boxes to exist in the database for proper operation. During start-up it checks that these boxes exist. If a required box does not exist, the VP system automatically creates it. No further action is required. This error is normally due to a missing database file. Other error messages probably display.

0931 Unable to Initialize Database

One or more of the VP system database files (files with the extension .DVM) is missing or corrupted. This error messages is usually preceded by another error message identifying the missing or corrupt file(s).

0932 Small Office Version Supports Up to <x> Boxes of This Type

The maximum number of boxes of this type has been reached in this VP system version. Verify there are no boxes of this type that are not used and can be deleted.

933 Database Not Compatible (Database Version = <x>)

This version of the VP system is not compatible with the database. If you have just upgraded the system, be sure to run the database conversion utility provided.

935 Unable to add box <x> to internal list

An error occurred while the VP system was attempting to add a new box. This is an internal error. Check the ERROR.LOG file to see if any other errors were reported at the same time, as these might identify what the original problem was.

1101 Error Closing File in Module <x>, Position <y>

This is an internal error. Normally no further action is required. If this error occurs frequently, contact technical support.

1301 Cannot Open Source File <t> to Copy It

The VP system was attempting to make a copy of the specified file, but was unable to open it. Check that the file exists.

1302 Cannot Open Destination File <t> For File-Copy

The VP system was attempting to make a copy of a file. The new copy was to be given the specified name. However, the VP system was not able to create a file with that name. Check that a read-only file of the same name does not exist. Make sure (networks only) that the VP system is allowed to write to the specified directory.

1303 Play / Record Filename is Blank, But Handle Not Null (Line <x>)

This is an internal error encountered during a play or record operation. If the problem persists, contact technical support.

1306 Invalid Class-of-Service Category <x>(Data = y)

This is an internal error. Normally no further action is required. If this error occurs frequently, contact technical support.

1307 File <t> Has Incorrect Attributes. Data = <x> , <y>

This is an internal error. Normally no further action is required. If this error occurs frequently, contact technical support.

1501 Error <x> Reported While Accessing Call-History File

While preparing a Talking Classifieds report, the VP system was unable to access the call history file RCALL.HST. Make sure this file is not corrupted. (If the file had been missing at start-up, the VP system would have warned you that it was missing, and then automatically created a new one).

1502 Read Error <x> Reported While Accessing Box <y> Data

While accessing the box database, to process one of the setup screens, the VP system was unable to read the data for the specified box. Try the operation again. If the error occurs, exit to DOS and try again. If the error still persists, contact technical support.

1503 Write Error <x> Reported While Accessing Box <y> Data

While accessing the box database, to process one of the setup screens, the VP system was unable to write the data for the specified box into the database. Try the operation again. If the error occurs, exit to DOS and try again. If the error still persists, contact technical support.

1504 Write Error <x> Reported While Writing System Information

While processing one of the system information setup screens, the VP system was unable to update the database. The file in question is called SDTABASE.DVM. Make sure it is not corrupt. Exit to DOS and run the program again.

1505 Write Error <x> Reported While Writing Line Information

While processing the LINE INFORMATION screen, the VP system was unable to update the database. The file in question is called LDTABASE.DVM. Make sure it is not corrupt. Exit to DOS and run the program again.

1506 Box <x> is Not a Mail Box

Only mailboxes can be members of a Group box. The box specified is not a mailbox, but you have tried to add it to the current Group box.

1507 Database Password Must Consist of Numbers and Letters Only

You have entered an invalid database-access password. The password must consist of the letters **A** through **Z**, and/or the numbers **0** through **9** only.

1508 You Must Enter a Filename for the RESULTS File

When exiting from an Outbound Telemarketing box screen, there must be a filename in the RESULTS field.

1509 Telemarketing Source File "<t>" Does Not Exist

When exiting from an Outbound Telemarketing box screen, the filename in the SOURCE field must be the name of an existing file.

1510 Holiday <x> Does Not Have a Valid Date

You entered an invalid date for the holiday indicated. Enter a valid date, or select NONE for the month.

1601 Cannot Open Menu Information File "<t>"

The VP system was unable to read the information it needs to build its on-screen menus. The information is held in the file MENU.FIL. Make sure the file exists in the current directory.

1602 Too Many Items (<x>) on Menu. <t> Probably Corrupted

While the VP system was reading the menu-information file MENU.FIL, it encountered invalid information. The file is probably corrupted. Copy the file from the master distribution disks.

1603 Too Many Items (<x>) In File. <t> Probably Corrupted

While the VP system was reading the menu-information file MENU.FIL, it encountered invalid information. The file is probably corrupted. Copy the file from the master distribution disks.

1604 Not Enough Memory to Load Menu Information

The VP system ran out of DOS conventional memory while reading the menu information file.

1605 Cannot Open Window to Display Menu. Probably Out of Memory

When the VP system opens a new window on the screen, it saves any screen information that the new window will cover. If there is not enough memory to save the information, this message displays.

1801 Cannot Open TRANSFER Panel

The VP system was unable to open a window to display the CALLTRANSFER screen. This is probably due to a shortage of memory.

1802 Cannot Add Box <x>

This error is encountered while attempting to add the specified box to the database. If you are running the demonstration program, the VP system allows a maximum of 25 boxes in the database. If you are not running the demonstration program, exit to DOS and try again.

1803 Cannot Add Box <x>

This error is encountered while attempting to add the specified box to the database. If you are running the demonstration program, the VP system allows a maximum of 25 boxes in the database. If you are not running the demonstration program, exit to DOS and try again.

1804 Cannot Delete Box <x>

The VP system was unable to delete the box you specified. Exit to DOS and try again. Make sure the box database file (BDTABASE.DVM) is not corrupt by running the utility SCANDB -V.

1805 Cannot Initialize Telemarketing File

The VP system was unable to properly initialize one of the files that control the Outbound Telemarketing features. These files are TMKT.CTL, TK009970.CTL, TK009971.CTL, TK009972.CTL, TK009973.CTL, and TK009974.CTL. Exit to DOS and see which one is missing, then restore the latest backup of the file. These files are used to remember where each box is in its number-list file.

1806 This Requires the Talking Classifieds Package

You have attempted to access a screen that is accessible only if you have the Talking module.

1807 This Requires the FAX Feature Package

You have attempted to access a screen that is accessible only if you have the Fax module.

1808 This Requires the Telemarketing Package

You have attempted to access a screen that is accessible only if you have the Outbound Telemarketing module.

1810 Boxes numbered 9900 through 9999 are reserved

You cannot add or delete boxes numbered between 9900 and 9999. These box numbers are reserved for system use.

1811 Box <x> Already Exists (a <t>-Box)

You have attempted to add a box to the database. However, the box number is already in use.

1812 Box <x> Does Not Exist

You have attempted to select a box that does not exist in the database. If you are trying to add a new box to the database, use the <F2> key.

1813 Box <x> is a <t>-Box

You have attempted to select a box that does exist in the database, but is not of the type you are currently displaying. Press <F10> to go back to the Box menu, and select the appropriate box type.

1814 Box <x> is Open - You Cannot Access it Right Now

You have tried to display the information about the mailbox specified on the screen. However, the mailbox is currently open (the owner has called in and opened his/her mailbox). The VP system does not allow screen access to the mailbox while it is open. You must wait until the owner exits from the mailbox, or (if it is urgent) go to the LINE STATUS screen and force-disconnect the line that the owner is using.

1815 Cannot Open Call-History File

While preparing a Talking Classifieds report, the VP system was unable to access the call history file RCALL.HST. Check this file for corruption. (If the file had been missing at start-up, the VP system would have warned you that it was missing, then automatically created a new one.)

1816 Small Office Version Supports Up to <x> Boxes of this Type

The maximum number of boxes of this type has been reached in the Small Office version. Verify that there are no boxes of this type that are not used and can be deleted.

1818 This Requires the IVR Package

You have attempted to access a screen that is accessible only if you have the IVR module.

2101 Not Enough Memory for Background-Copy Buffers

The VP system has run out of conventional DOS memory.

2102 Internal Error <x> Reported in Background Copy (Data = <y>)

While copying a message file, the VP system encountered an error. This will probably result in a message not being forwarded properly or not being broadcast properly. Report this error to technical support.

2104 Background Copy Module in Invalid State (<x>)

While copying a message file, the VP system encountered an error. This will probably result in a message not being forwarded properly or not being broadcast properly. Report this error to technical support.

2105 Cannot Open Destination File "<t>" to Copy from Box <x> to Box <y>

While copying a message file, the VP system was unable to open a file into which the copy should be placed. This will probably result in a message not being forwarded properly or not being broadcast properly. Make sure a file with this name does not have read-only attributes.

2106 Cannot Open Source File "<t>" to Copy from Box <x> to Box <y>

While copying a message file, the VP system was unable to open the file from which the copy was to be made. This will probably result in a message not being forwarded properly or not being broadcast properly.

2107 Cannot Rename Msg File to "<t>" for Box <x> on Line <y>

When copying a message file, the VP system uses temporary filenames. In this case, it was unable to rename the message file to the specified temporary filename. Make sure a file with this name does not have read-only attributes.

The VP system copies messages in the *background*. This means that it copies parts of the message when it has some free time. It queues requests to copy messages and actually copies them when there is idle time on the system. The maximum number of requests that can be queued at any one time is shown in this error message. 2108Too Many Simultaneous Copies - Maximum is <x>

2301 Cannot Open Trace File "<t>"

There is a diagnostic utility in the VP system that allows it to trace all activity and place the results in a file. This error message means that the trace utility has been invoked, but the trace file cannot be accessed. The trace feature should only be run under the supervision of a technical support representative. Report this error to technical support.

2302 Trace File "<t>" Not Open - Cannot Store Trace Information

There is a diagnostic utility in the Interchange that allows it to trace all activity and place the results in a file. This error message means that the trace utility has been invoked, but the trace file cannot be accessed. The trace feature should only be run under the supervision of a technical support representative. Report this error to technical support.

2401 Multiple Calls to Open Telemarketing Windows - Ignored

This is an internal error. It has no effect on system operation. If the error persists, report it to technical support.

2402 Label Information Corrupted

The Interchange was unable to read the internal label information contained in the file ACCER.DAT. Copy the original from the distribution disks.

2403 Less than <x> Minutes of Recording-Time Left on Disk

This is a warning that the hard drive is almost full. If there are between 2 and 5 minutes left, this warning is repeated every 30 seconds. If there are less than 2 minutes left, the warning is repeated, and the Interchange does not accept messages for mailboxes, informing callers that the system is temporarily out of space.

2502 Internal Voice / Fax Error <x> (Data =<y>)

This is an internal error. Report it to technical support.

2506 Fax Box <x> in Invalid State <y>. Call Terminated

This is an internal error. If this error persists, contact technical support.

2601 File <t> Left Open From Play / Record on Line <x>

The specified file was not closed properly when it was last played or recorded. This is a warning only, and does not affect system operation.

2602 Cannot Open File <t> to Play on Line <x>

The Interchange tried to play the specified file, but was unable to access it. Make sure the file exists. If it does not, copy it from the distribution disks.

2603 Cannot Open File <t> to Record on Line <x>

The Interchange tried to record the specified file, but was unable to create it. Make sure there is not already a file of that name with its read-only attribute set.

2604 Invalid Start-Position for Indexed-Play Operation, Line <x>

This is an internal error. It results in a fast-forward or rewind operation failing (the Interchange plays the message from the beginning). If the error persists, report it to technical support.

2701 Not Enough Memory for Group-Distribution Lists

The Interchange has run out of conventional DOS memory.

2702 Mailbox <x> Full. Cannot Accept Group Box <y> Message

While the Interchange was distributing a Group box message to the members of the Group box, it found that one of the member mailboxes already reached its maximum number of messages. This error message lets you know that the message was not delivered to the specified mailbox.

2703 Cannot Read Data for Mail Box <x> in Group Box <y>

While the Interchange was delivering a Group box message to the members of the Group box, it was unable to find one of the members in the database. Since group distribution of messages is performed in the background (when the system has some free time), it is possible that the mailbox was deleted while the message was still pending. If this is not the case, check that the box database file (BDTABASE.DVM) is not corrupt, by running the SCANDB utility.

2901 Unable to Send Internal Event <x> (<t>) on Line <y>

This is an internal error. If it persists, contact technical support.

2902 Unable to initialize internal event queue (<x>)

This is an internal error. If it persists, contact technical support.

2903 Cannot queue database change event (object = <x>, type = <y>)

The database server informed the Interchange that a change had been made to the database. The Interchange was unable to process this change. Shut down the Interchange, then re-start it. If the problem persists, contact technical support.

3001 Telemarketing Box <x> in Invalid State (<y>). Call Terminated

This is an internal error. If it persists, contact technical support.

3002 No Tone on Line <x> During Telemarketing Call. Call Terminated

While the Interchange was making an outgoing telemarketing call, it did not detect any tone for 60 seconds after dialing the telephone number.

3003 Cannot Open Telemarketing Control File "<t>" for Box <x>

The Interchange maintains files of information about the progress of telemarketing calls—one file per Outbound Telemarketing box. This error message means that the Interchange was unable to access the file. Check the hard drive for corruption. Run the program again. If the file was missing, the Interchange creates a new one.

3004 Cannot Open Telemarketing Input File "<t>" for Box <x>

The Interchange tried to look in the specified file for a list of telephone numbers to call. It was unable to open that file. Make sure the file exists and is in the proper directory.

3005 Cannot Open Telemarketing Non-Allowed Numbers File "<t>"

Before making any telemarketing call, the Interchange checks a file of non-allowed numbers, if you specified one in the Outbound Telemarketing box. The Interchange tried to look in the specified file for a list of telephone numbers that are barred. It was unable to open that file. Make sure the file exists and is in the proper directory.

3101 Driver Error <x> Reported While Reading Driver Version

The Interchange encountered an error when it tried to get the version number of the voice board driver. See error 6306 for a list of possible driver errors.

3102 Driver Error <x> Reported While Setting System Configuration

The voice board driver reported an error while the Interchange was trying to initialize it. See error 6306 for an explanation of the various driver errors.

3103 Driver Error <x> Reported While Starting Driver

The voice board driver reported an error while the Interchange was trying to initialize it. See error 6306 for an explanation of the various driver errors.

3104 Driver Error <x> Reported While Enabling Line <y>

The voice board driver reported an error while the Interchange was trying to initialize it. See error 6306 for an explanation of the various driver errors.

3105 Hardware Driver Not Responding

The Interchange was not able to communicate with the voice board. There may be interrupt conflicts or shared-memory conflicts with other boards in the computer. If the Interchange has already been running on this computer, consider the following: Have you added new boards lately? Did you make changes to the CONFIG.SYS file or the AUTOEXEC.BAT file? If the Interchange has not yet run on this computer, remove all boards except the video board, the voice board, and the disk controller from the computer, and try the program again. If you know how to change the memory address of the board, try a different address, otherwise call technical support.

3106 OFFHOOK Error <y> Initializing Line <x>

This error occurs when initializing a Dialogic D42D-SX, -SL, or -NS board. Check to see that the station port connected to this line is active and functioning normally. An error on one particular line could indicate a bad port on the Dialogic board. Try replacing the board if all PBX ports test fine.

3107 ONHOOK Error <y> Initializing Line <x>

This error occurs when initializing a Dialogic D42D-SX, -SL, or -NS board. Check to see that the station port connected to this line is active and functioning normally. An error on one particular line could indicate a bad port on the Dialogic board. Try replacing the board if all PBX ports test fine.

3108 Error <x> in GetEvent During Initialization

This error occurs when initializing a Dialogic D42D-SX, -SL, or -NS board. Try re-booting the computer. If error persists, replace the Dialogic board.

3201 Error <x> Opening Call log File <t>

The Interchange was unable to open the file VOICMAIL.LOG. This file contains the call logging information for the current day's calls. If the problem persists, contact technical support.

3202 Error <y> Storing Daily Log File <t> (Data =<x>)

At midnight every night, the Interchange takes the current day's call log information (in VOICMAIL.LOG) and moves it into the LOG sub-directory. To do this, it needs to create a file in the LOG sub-directory. This error indicates that the Interchange was not able create the new file. Make sure the LOG sub-directory exists.

3203 Cannot Create Call-Count File <t>

The Interchange keeps certain statistics in a file called CDTABASE.DVM. When the program starts up, the Interchange makes sure this file exists. If it does not exist, the Interchange automatically creates a new one. This error message indicates that the Interchange was unable to create the new file. If the problem persists, contact technical support.

3204 Printer is Not Ready

The Interchange was unable to send call log information to the printer because the printer was not ready. Make sure the printer is connected as LPT1, is powered up, is online, and has paper.

3301 Listing Box <x> in Invalid State <y>. Call Terminated

This is an internal error. If the problem persists, contact technical support.

3401 Mailbox <x> in Invalid State <y>. Call Terminated

This is an internal error. If the problem persists, contact technical support.

3402 Unknown Digit Type <x> Received on Line <y>

The voice board reported a digit to the Interchange that was neither DTMF or Dial Pulse. If error persists, replace the voice board.

3501 Mail Box <x> in Invalid State <y>. Call Terminated

This is an internal error. If the problem persists, contact technical support.

3502 No Tone Detected During Call-Analysis on Line <x> (Box <y>)

While the Interchange was making a call, it did not detect any tone for 60 seconds after dialing the telephone number.

3601 Error Delivering Message <y> to Mail Box <x>

When the Interchange tried to insert a new message into the specified box, an error was encountered. If the problem persists, contact technical support.

3603 Setting Message Notification for Box <x> - Not a Mail Box

The Interchange maintains a queue of mailboxes that must be notified because they have new messages. This error message indicates that the Interchange found a box on that queue that was not a mailbox (for example, Routing box, Question box, etc.).

3701 Mail Box <x> in Invalid State <y>. Call Terminated

This is an internal error. If the problem persists, contact technical support.

3902 Error <x> Reported From Driver While Polling for Event

The voice board driver reported an error. See error 6306 for a list of driver errors.

.3903 Error Generated Manually (For Test)

.3904 Unknown database modification request (class=<x>, action=<y>)

The database server informed the Interchange that a change had been made to the database. The Interchange was unable to process this change. Shut down the Interchange, and re-start it. If the problem persists, contact technical support.

3905 Database server has shut down. Program will now terminate

The database server informed the Interchange that it is shutting down. The Interchange cannot operate without the database server, so it also must shut down.

.3906 Cannot Add Box <x> to Database – Max boxes allowed is <y>

An attempt was made to add a box to the database. Each VP product (for example, Small Office, Small Office Lite, etc.) is limited in the number of boxes it can hold in its database. The limit has been reached. If you need to upgrade to the next level, contact your sales representative.

4001 Cannot Queue Message Notification Request for Box <x>

The Interchange was unable to initiate message notification for the specified box. If the problem persists, contact technical support.

4002 Out of Memory - Please Unload Any Resident Programs

The computer does not have enough conventional memory to load the Interchange. Remove any other TSR programs and re-boot the computer. Type MEM at the \VM directory prompt and verify that there is 640 K bytes total conventional memory available.

4101 Mail Box <x> Cannot Find New Messages for Question Box <y>

Although the Question box has some new messages, the Interchange was unable to find them in the database. Exit to DOS, and run the auditing utility program MSGAUDIT.

4102 Mail Box <x> Cannot Find Old Messages for Question Box <y>

Although the Question box has some new messages, the Interchange was unable to find them in the database. Exit to DOS, and run the auditing utility program MSGAUDIT.

4201 Box <x> is a Member of Group Box <y>, But is Not a Mail Box

Only mailboxes are allowed to be members of a Group box. While performing message notification, the Interchange encountered a box that is not a mailbox, but that is a member of the specified Group box. Remove this box from the Group box.

4202 Cannot Read Information for Mail Box <x> in Group Box <y>

While performing message notification, the Interchange was unable to access the specified member of the Group box in the database. This mailbox does not be notified of the new Group box message. If the problem persists, check the FILES statement in the CONFIG.SYS file. This should be at least 40.

4401 Mail Box <x> in Invalid OPEN State (<y>)

This is an internal error. If the problem persists, contact technical support.

4505 Mail Box <x> in Invalid OPEN State <y> While Receiving Fax

This is an internal error. If the problem persists, contact technical support.

4601 Mail Box <x> in Invalid OPEN State <y>

This is an internal error. If the problem persists, contact technical support.

4701 Mail Box <x> in Invalid OPEN Supervisor State <y>

This is an internal error. If the problem persists, contact technical support.

4702 Invalid Supervisor-Function Request <y> From Mail Box <x>

This is an internal error. If the problem persists, contact technical support.

4801 Paging Module in Invalid State <x>. Call Terminated

This is an internal error. If the problem persists, contact technical support.

4802 Not Enough Memory to Initiate Paging Module

The computer does not have enough conventional memory to load the Interchange. Remove any other TSR programs and re-boot the computer. Type MEM at the \VM directory prompt (depending on system setup) and verify that there is 640 K bytes total conventional memory available.

4901 Delete-Queue Corrupted. Data =<t>, <x>, <y>. Queue Rebuilt.

When you ask the Interchange to delete a message, the Interchange does not delete the message immediately, but places the request on a queue called *delete-queue*. This queue is contained in the file VMDELETE.Q. When there is idle time on the system, the Interchange processes entries on the delete-queue. As a safety precaution, the Interchange regularly monitors this queue, to make sure the information is valid. This error message indicates that the Interchange found the queue to be corrupted. The Interchange deletes the queue, and re-creates a new (empty) delete-queue. This results in some messages not being deleted. The mailbox owners find the messages are still in their mailboxes, and they can delete them again. The probable cause of the error is a hard drive problem.

4902 Cannot Create Delete-Queue

When you ask the Interchange to delete a message, the Interchange does not delete the message immediately, but places the request on a queue called *delete-queue*. This queue is contained in the file VMDELETE.Q. When there is idle time on the system, the Interchange processes entries on the delete-queue. As a safety precaution, the Interchange regularly monitors this queue, to make sure the information is valid. This error message indicates that the Interchange found the queue to be corrupted or missing, but when it attempted to re-create the queue, it was unable to create the file VMDELETE.Q. If the problem persists, contact technical support.

4903 Cannot Open Delete-Queue File <t> to Add Entry

When you ask the Interchange to delete a message, the Interchange does not delete the message immediately, but places the request on a queue called *delete-queue*. This queue is contained in the file VMDELETE.Q. When there is idle time on the system, the Interchange processes entries on the delete-queue. This error indicates that the Interchange was unable to add a request to the queue. Make sure the file VMDELETE.Q exists, and does not have its read-only attribute set.

4904 Delete-Queue File Corrupted. Error =<x>

When you ask the Interchange to delete a message, the Interchange does not delete the message immediately, but places the request on a queue called *delete-queue*. This queue is contained in the file VMDELETE.Q. When there is idle time on the system, the Interchange processes entries on the delete-queue. As a safety precaution, the Interchange regularly monitors this queue, to make sure the information is valid. This error message indicates that the Interchange found the queue to be corrupted. The Interchange deletes the queue, and re-creates a new (empty) delete-queue. This results in some messages not being deleted. The mailbox owners find the messages are still in their mailboxes, and they can delete them again. The probable cause of the error is a hard drive problem.

4905 Cannot Open Delete-Queue File <t> to Service it

When you ask the Interchange to delete a message, the Interchange does not delete the message immediately, but places the request on a queue called *delete-queue*. This queue is contained in the file called VMDELETE.Q. When there is some idle time on the system, the Interchange processes entries on the delete-queue. This error indicates that the Interchange was unable to access the queue to process the next request. Make sure the file VMDELETE.Q exists, and does not have its read-only attribute set.

5001 Question Box <x> in Invalid State <y>. Call Terminated

This is an internal error. If the problem persists, contact technical support.

5003 Cannot Create Data File <t>

While collecting digits in a Question box, the Interchange was unable to create a file in which to store the digits. Check the FILES setting in the CONFIG.SYS file. It should be at least 40.

5101 Talking Classifieds Gateway <x> in Invalid State <y>

This is an internal error. If the problem persists, contact technical support.

5201 Event Received for Box <x>, Whose Type is Invalid (<y>)

The Interchange tried to process the specified box, but its type is not one of the valid box types (for example, mailbox, Routing box, etc.). If the box number is valid, exit to DOS and run the program again. If the problem persists, contact technical support.

5202 Event <y> Received for Line <x> - No Such Line

The Interchange received a request to process the specified line number. However, there is not that many lines connected to the system.

5203 DOS Error <x> Reported on Line <y>

DOS reported an error on the specified line. The Interchange terminates the call. If the problem persists, contact technical support. The most common DOS errors are listed below:

TABLE 3.

Error Number	Description
2	File not found
3	Path not found
4	Too many open files
5	Access denied
6	Invalid handle
8	Insufficient memory
15	Drive is invalid
255	Hardware problem on voice board

5204 Event <y> Received on Line <x> is Not Valid For Outgoing Call

This is an internal error the system encounters while preparing to make an outgoing call. If the problem persists, contact technical support.

5205 Invalid State / Event Combination on Line <x> (<t>)

This is an internal error. If the problem persists, contact technical support.

5206 Line <y> in Invalid State <x>

This is an internal error. If the problem persists, contact technical support.

5207 Cannot Go To Box <x> - Unable To Read It From Database

The Interchange attempted to route the call to the specified box, but was unable to retrieve information about that box from the database file BDTABASE.DVM. Make sure the box exists. Exit to DOS, and check the hard drive for errors. Run the program again, and try to access the box.

5208 IVPC Port <x> Lost Communication With Phone System

The specified port lost communication with the phone system. This can be due to the phone line being disconnected or a fault in the PBX or Interchange computer.

5209 IVPC Port <x> Re-established Communication With Phone System

The specified port lost communication with the phone system, but the problem has been corrected.

5301 No Onhook-Acknowledgment From Hardware on Line <x>

While the Interchange was clearing down a line, it did not get an acknowledgment from the voice board that the line had returned to an on-hook state. The Interchange waits for 5 seconds for this acknowledgment, then assumes that the line is on-hook anyway. If the problem persists, contact technical support.

5302 Cannot Read Box <x> From File For Notification-Check

While performing checks for the message notification feature, the Interchange was unable to retrieve information about the specified mailbox from the database (the file in question is BDTABASE.DVM). The effect is that the mailbox is not notified about the message. Make sure the box exists. If it does, exit to DOS, and check for hard drive errors.

5303 Cannot Read Box <x> From File for Auto-Forward Check

While performing checks for the auto-forwarding feature, the Interchange was unable to retrieve information about the specified mailbox from the database (the file in question is BDTABASE.DVM). The effect is that a message may not be auto-forwarded from this mailbox. Make sure the box exists. If it does, exit to DOS, and check for hard drive errors.

5304 Line <x> is Not Idle, But Has Been Inactive Too Long. Forced Idle.

The Interchange continually checks all lines in the system, to ensure that the lines do not get locked up due to some error condition. If a line is not in an idle state, but does not do anything for a 10 minutes, the Interchange assumes that the line has become locked up and forces it back to an idle state. If the problem persists, contact technical support.

5307 No More Timer Records For Line <x>. Call Terminated

This is an internal error. If the problem persists, contact technical support.

5308 Key error <x>. Data = <t>

The Interchange encountered a problem while checking the security key. Ensure the key is connected to the PCs parallel port.

5309 Mail box <y> exceeds limit of VCM users allowed (limit is <x>)

VCM can be enabled for 10, 20, 30, or any certain number of users. The Interchange noted that although VCM was enabled for a number of users, there was more than that number of mailboxes in the database marked as VCM users. Review all mailboxes in the database, and make sure you have not exceeded the authorized number of VCM users.

5401 Routing Box <x> in Invalid State <y>. Call Terminated

This is an internal error. If the problem persists, contact technical support.

5402 Unexpected End-of-File In File <t>

There is an error in the file format of the specified file.

5403 Comma Missing in File <t> For Box <x>

There is an error in the file format of the specified file.

5404 Error in Database-Look Up File <t>, Box <x>

The database-lookup file format is incorrect. See section 7 for information on the correct format.

5405 Cannot Open Database Lookup File <t>, Box <x>

The database-lookup file is missing. Check the spelling of the filename. Check the hard drive for errors.

5406 Unknown Digit Type (<x>) Received on Line <y>

See error 3402.

5601 Voicemail Gateway in Invalid State (<x>). Call Terminated.

This is an internal error. If the problem persists, contact technical support.

5602 Voicemail Gateway Was Unable to Open Box <x>

Although the correct password was entered, the Interchange was unable to open the specified box, as it was unable to retrieve the box information from the database (file BDTABASE.DVM). Try the operation again. If you still cannot open the mailbox, exit to DOS, and check the hard drive for errors.

5701 Message-Wait Module in Invalid State <y>. Call Terminated

This is an internal error. If the problem persists, contact technical support.

5702 Cannot Queue Message-Wait Request for Box <x>

When the Interchange needs to turn on / off a message waiting lamp, it places a request on the message-wait queue. It then processes the queue when a line is available. This error message means that the Interchange was unable to place a request on the queue. This may happen if the system is extremely busy, or if you do not have enough lines set up to allow message waiting calls. The effect is that the message waiting lamp associated with the specified mailbox may not be turned on or off at the appropriate time. Also, check that there is dial tone on the lines you are using to activate message waiting lamps.

5703 Msg-Wait Module Cannot Read Member <y> From Group Box <x>

While the Interchange was attempting to operate a message waiting lamp for a the specified member of the Group box, it encountered a problem retrieving information about the mailbox from the database (file BDTABASE.DVM). The effect is that the message waiting lamp associated with the specified mailbox does not be turned on at the appropriate time.

5704 Not enough memory for message-waiting queues

The Interchange ran out of memory during initialization.

5801 Not Enough Memory for Digit-Translation Tables

The Interchange ran out of memory during initialization.

5802 Too many Digit-Translation Rules, Maximum Allowed Is <x>

The digit-translation file (TRANS.TXT) contains too many translation rules. Delete some of the rules. See section 7 for more information on the format of the digit-translation file.

5803 Illegal Character #<x> In Digit-Translation Rule: <t>

One of the rules in the digit-translation file (TRANS.TXT) contains an illegal character. See section 7 for more information on the format of the digit-translation file.

5804 Left Side of Digit-Translation Rule Too Long: <t>

The part of the specified digit-translation rule on the left of the "=" sign is too long (in the file TRANS.TXT). See section 7 for more information on the format of the digit-translation file.

5805 Right Side of Digit-Translation Rule Too Long: <t>

The part of the specified digit-translation rule on the right of the "=" sign is too long (in the file TRANS.TXT). See section 7 for more information on the format of the digit-translation file.

5806 "EQUAL" Sign Missing From Digit-Translation Rule: <t>

The "=" sign is missing from the specified digit-translation rule in the file TRANS.TXT. See section 7 for more information on the format of the digit-translation file.

5807 Digit-Translation Character #<x> Not Defined on Left-Side: <t>

In the specified digit-translation rule in the digit-translation file (TRANS.TXT), there is an identifier on the right side of the "=" sign that is not defined on the left side. See section 7 for more information on the format of the digit-translation file.

5808 Wrong Format For Greeting. Example of Correct Form is 4X=X*,*:G2

A digit-translation rule using the Greetings by Reason Code feature has been entered incorrectly. The correct format is a standard digit translation rule, followed by a colon (:), the letter **G**, and the desired greeting number.

5901 Directory-Box in Invalid State (<x>). Call Terminated.

This is an internal error. If the problem persists, contact technical support.

6001 Invalid Response: <t>

When you are recording or playing a box greeting, the Interchange asks you for a language number and/or a greeting number (depending on whether you are using multiple languages and/or multiple greetings). The language number must be within the range indicated (this can be changed via the configuration file VM.CFG, see section 12 for details). The greeting number must be within the specified range (configurable via the mailbox's assigned class of service). You may also press <Esc> to cancel the play or record operation.

6002 Cannot Open Screen Information File "<t>"

The Interchange needs to read the specified file to retrieve information on the various screen layouts. It was unable to open the file. Make sure the file exists. Make sure the FILES statement in the CONFIG.SYS file specifies at lease 40 files.

6003 Error <x> in Screen-Information File "<t>" (data =<y>)

The Interchange needs to read the specified file to retrieve information on the various screen layouts. While reading the file, the Interchange found that its format was not correct. Copy the file from the distribution disks, and run the program again.

6004 Not Enough Memory for Screen Information

The Interchange ran out of memory while reading screen-formatting information.

6005 Cannot Create New Screen (<x>). Probably Insufficient Memory.

The Interchange was unable to allocate enough memory for its screen information. It most likely ran out of memory.

6006 Cannot Allocate Memory for New Screen (<x>)

The Interchange was unable to allocate enough memory for its screen information. It most likely ran out of memory.

6101 Not Enough Memory for Line Information

The Interchange needs to allocate a small amount of conventional memory to hold line-related information. There was not enough free memory to allow this allocation.

6102 Label Information Corrupted

The Interchange was unable to read the file containing screen formatting information (ACCER.DAT). Copy the file from the distribution disks.

6103 Label Information File Missing

The Interchange was unable to find the file containing screen formatting information (ACCER.DAT). Copy the file from the distribution disks.

6104 Not Enough Memory to Run Program (You Need at Least <x> KB More)

The computer does not have enough conventional memory to load the Interchange. Remove any other TSR programs and re-boot the computer. Type MEM at the \VM directory prompt (depending on system setup) and verify that there is 640 K bytes total conventional memory available.

6105 Error in Config File - Line <x>

An incorrect or invalid parameter has been entered in the configuration file VM.CFG on line <*x*>. Locate the error by counting down lines of text from the top of the file (blank lines are not counted). See section 12.

6201 Not Enough DOS Memory for Line Information

After finding that there was not enough EMS memory to hold its line-related information, the Interchange attempted to use DOS conventional memory. However, there was not enough conventional memory either.

6202 Not Enough EMS Memory for Box Information

The Interchange attempted to allocate EMS memory for its own use, but found that there was not enough free EMS memory.

6203 Internal EMS Error <x> on Line <y>. <t>

This is an internal error. If problem persists, contact technical support.

6204 Tried to Access EMS for Line <x>. Highest Line is <y>

This is an internal error. If problem persists, contact technical support.

6301 Internal Driver-Interface Error <x>. Data = <y> <t>

Internal logic error. If the problem persists, contact technical support.

6302 Cannot Open Call-Progress File <t>

The Interchange was unable to access the specified file, which contains information on the various call-progress tones (for example, ring-tone, busy-tone). Run the call-progress training program to create the file (see section 13). The effect of this error is that the Interchange uses a default set of call-progress tone parameters when it is making outgoing calls (for example, for call transfer or message notification). These defaults work in most cases. However, in some cases this may result in the Interchange not being able to tell the difference between a telephone that is ringing and one that is busy, or it may fail to detect when the called party has answered the call.

6303 Error <x> Reading Call-Progress File. Data = <t>, <y>

The Interchange was unable to read the information in the specified file, which contains information on the various call-progress tones (for example, ring-tone, busy-tone). The file may be corrupted. Run the call-progress training program to re-create the file (see section 13). The effect of this error is that the Interchange uses a default set of call-progress tone parameters when it is making outgoing calls (for example, for call transfer or message notification). These defaults work in most cases. However, in some cases this may result in the Interchange not being able to tell the difference between a telephone that is ringing and one that is busy, or it may fail to detect when the called party has answered the call.

6304 Error <x> in Global-Parameters File <t>

In the specified file, the Interchange expected to find special setup information, but the format of the information was not correct. The file may have become corrupted. Restore the latest backup copy of the file, or contact technical support.

6305 Error <x> in Channel-Parameters File <t>

In the specified file, the Interchange expected to find special setup information, but the format of the information was not correct. The file may have become corrupted. Restore the latest backup copy of the file, or contact technical support.

6306 Error <x> Reported from Get Event

The Rhetorex RDSP driver reported an error while the Interchange was polling it for events. If the problem persists, contact technical support. The most common errors are listed below:

TABLE 4.

Error Number	Description
4	System not active
5	Hardware error
9	Bad line number
16	Insufficient buffer memory
34	EMS memory error

6307 Unknown Digit Type <x> on Line <y>

A digit was received on the specified line, but it was invalid. If the problem persists, contact technical support.

6308 DOS Seek Error During Play / Record Operation on Line <x>

DOS reported an error to the Interchange when it tried to start a play or record operation on the specified line. The effect is that the particular prompt does not play, but the call continues. If the problem persists, contact technical support.

6309 Board Not Configured for This Program

The Interchange was unable to initialize the voice board. The board will only operate with voice boards supplied by the Interchange manufacturer. Contact technical support.

6310 WARNING: Cannot Find External Call-Progress File <t>

The file containing the structure of the external (telephone network) call-progress tones is missing or corrupt. Replace the file, or run call progress analysis to re-create the file.

6311 Error <x> Initializing Call-Progress Parameters On Line <y>

The voice board driver reported an error when the Interchange attempted to set up the call-progress tone parameters for the specified line. The result is that the Interchange uses the default call-progress tone parameters for that line.

6312 Error <x>, <y> Reading Tone File: <t>

The file containing the structure of the call-progress tones is missing or corrupt. Replace the file or run call progress analysis to re-create the file. See section 13 this procedure.

6313 Hardware Failure

An error condition was detected from the voice board. Power down the computer and re-seat the board(s), then re-boot the computer. If error persists, replace the voice board(s).

6314 Error <y> Opening File <t> in Mode <x>

This is an internal error. If the problem persists, contact technical support.

6315 Error in function <t> on line <y>

The Interchange encountered an error while communicating with the voice board. If the problem persists, contact technical support.

6316 Term mask error with event <x> on line <y>

The Interchange encountered an error while communicating with the voice board. If the problem persists, contact technical support.

6317 Call-progress error from voice API. Value = <x>

The Interchange encountered an error while making an outgoing call. If the problem persists, contact technical support.

6318 Error event from voice API. Handle = <x>, Dlg event = <y>

The Interchange encountered an error while communicating with the voice board. If the problem persists, contact technical support.

6319 Voice API call <t>. Result = <x>, handle = <y>

The Interchange encountered an error while communicating with the voice board. If the problem persists, contact technical support.

6320 Invalid event from voice API. Dlg event = <x>, handle = <y>

The Interchange encountered an error while communicating with the voice board. If the problem persists, contact technical support.

6321 Invalid event handle from voice API. Handle = <x>

The Interchange encountered an error while communicating with the voice board. If the problem persists, contact technical support.

6322 Error <y> opening line <x>. Name = <t>

The Interchange encountered an error while communicating with the voice board. If the problem persists, contact technical support.

6323 Error <x> in "<t>" while starting voice driver.

The Interchange encountered an error while communicating with the voice board during initialization. If the problem persists, contact technical support.

6324 No tone detected while dialing out on line <y>

The Interchange tried to make a call on the specified line. It went off-hook, dialed the number, and then waited for a call-progress tone (for example, ringing or busy tone). No tone was detected. Check the Interchange setup. Make sure the 'Sequence to seize a line on external call' is set properly. Also, verify extension numbers and message delivery numbers are entered correctly in each mailbox.

6401 Software Type Does Not Match Board Type (<x>)

The Interchange software loaded in the computer does not match the make and model of voice board(s) installed.

6402 Key Error <x> <t>

The Interchange has detected an error from the security key. Contact technical support.

6403 System not authorized for Windows NT

To run the Interchange under Windows, you need to use a security key that has been enabled for Windows NT or Windows 2000. The Interchange has detected a key that is authorized only for DOS-based Interchanges.

6404 ITT-3100 Driver Not Found

The Interchange was programmed to work with the ITT-3100 driver, but was unable to find the driver in memory. Make sure the driver is loaded either from the AUTOEXEC.BAT file or from the VERBATIM.BAT file.

6405 In-Band Integration Feature Not Authorized

The in-band integration feature has not been enabled for this installation. Make sure you have entered the correct authorization code in the PBXLINK.TXT file.

6406 System not authorized for this version of software

The Interchange has detected a key that is authorized to run an older version of software. Contact technical support if you think this is an error. Or contact your sales representative if you need to upgrade to a newer key.

6407 Key not authorized

The security key connected to the Interchange is not authorized. Contact technical support if you think this is an error.

6501 Mail Box <x> in Invalid OPEN State (<y>)

This is an internal error. If error persists, contact technical support.

6601 Missing ‘]’ in Line <x> of Language File <t>

The LANGUAGE.TXT file is used to translate certain screen text into other languages. Each word subject in this file must be enclosed in brackets [ ].

6602 Missing ’[‘ in Line <x> of Language File <t>

See error 6601.

6603 Unexpected End-of-File in Language File <t> (Line <x>)

If you have edited the LANGUAGE.TXT file, check the line indicated in the error message for mistakes. If no changes have been made to the file, re-copy the file from the installation disks to the hard drive.

6701 Serial Link Down. Attempting to Reconnect.

The serial link connection with the host telephone system went down. The Interchange sends re-start messages at regular intervals to try to re-establish communication. Make sure all connections are tight, and check the communications port on the telephone system. Since the Interchange uses timing parameters to determine the condition of the link, you may also see this message if you adjust the clock on the PC.

6801 Cannot Open File <t>

This error is for serial port integrations. The .LNK file is missing or corrupted, or an internal error has occurred.

6802 Error <y> on Line <x> of Serial-Link File <t>

An entry on line x of the specified .LNK file is not in the proper format (a value is missing or out of range). The file is probably corrupt. Make a backup of the .LNK file, then copy the original from the distribution disks.

6803 Missing EQUALS Sign on Line <x> in File <t>

See error 6802.

6804 Unknown Character in Line <x> of File <t>

See error 6802.

6805 Error in Message-Type on Line <x> of File <t>

See error 6802.

6806 Error in Response-Type on Line <x> of File <t>

See error 6802.

6807 Unknown Message-Type on Line <x> of File <t> (Data = <y>)

See error 6802.

6808 Error <y> in Message waiting Declaration on Line <x> of File <t>

See error 6802.

6809 Error <y> in Call-Progress Result on Line <x> of File <t>

See error 6802.

6810 Error <y> in Voice-Mail Port ID on Line <x> of File <t>

See error 6802.

6811 Error in Call-Type Format on Line <x> of File <t>

See error 6802.

6812 Unknown Call-Type on Line <x> of File <t>

See error 6802.

6813 Error <y> in Internal/External Field on Line <x> of File <t>

See error 6802.

6814 Error <y> in FORWARD FROM Field on Line <x> of File <t>

See error 6802.

6816 Unknown SEND Command (<t>) in Line <x>

See error 6802.

6817 Unknown Character (<y>) on Line <x> of File <t>

See error 6802.

6818 Unknown Miscellaneous Info on Line <x> of File <t>

See error 6802.

6819 Not Enough Memory For PBX-LINK Tables

There is not enough conventional memory available in the computer to load the Interchange with serial port integration. Remove any other TRS programs from the computer, then type `MEM` and verify that the computer has a total of 640K bytes of conventional memory available.

6901 Error <x> Opening Port COM<y>

Check for a hardware failure with the associated COM port or a hardware interrupt conflict within the computer.

6902 Error <x> Setting Speed on Port COM<y>

See error 6901.

6903 Error <x> Setting Parity on Port COM<y>

See error 6901.

6904 Error <x> Setting Data Bits on Port COM<y>

See error 6901.

6905 Error <x> Setting Stop Bits on Port COM<y>

See error 6901.

6906 Error <x> Closing Port COM<y>

See error 6901.

6907 Error <x> Sending Data to Port COM<y>

The system is unable to send data on the specified serial port. Common errors are:

TABLE 5.

Error Number	Description
2	This is an invalid port number. Valid ports are COM1 through COM4.
3	The port is not open. This is an internal error. If the problem persists, contact technical support.
7	The output queue is full. This error occurs if the Interchange tries to send data faster than it can be sent across the serial link. Try increasing the link speed. Note that if you change the speed of the link on the Interchange, you must change it on the telephone system also.

6908 Error <x> Reading Data From Port COM<y> (Status = <t>)

An error was encountered while trying to reading data on the specified serial port. Common errors are:

TABLE 6.

Error <x>	Description
0	See status field (in following table).
2	Invalid port number. Valid ports are COM1 through COM4.
3	The port is not open. This is an internal error. If the problem persists, contact technical support.
7	Output queue full. This error occurs if the Interchange tries to send data faster than it can be sent across the serial link. Try increasing the link speed. Note that if you change the speed of the link on the Interchange, you must change it on the telephone system also.

TABLE 7.

Status <t>	Description
0001	Some information was lost because data was received on the link faster than it could be processed by the voice mail.
0002	This is an internal error.

TABLE 7.

0010	This is a Parity error. Make sure the link settings are set correctly at both ends of the link.
0020	This is an Overrun error.
0040	This is a Framing error. Make sure the link settings are set correctly at both ends of the link.

7001 Unknown Message-Type <x> in PBX-Link Information

Unknown or incorrect data has been received in a serial data packet. Check for compatible transmission characteristics (baud rate, data bits, parity, etc.). Verify that you have the correct .LNK file for the telephone system being connected.

7002 Bad Format in PBX-Link Information

See error 7001.

7101 SMDI Send Queue is Full

The queue holding outgoing SMDI packets (message waiting on or off packets) is full. Make sure the data link is operational. If this error occurs during a global refresh of message waiting lamps, you may need to increase the speed of the data link. If this is not possible, you may need to discontinue using the global refresh feature.

7201 Error in Configuration File (Line <x>)

An error has been detected on line x of the configuration file VM.CFG. Additional error messages may give more detailed information about the error, or see section 12 for the proper format and permitted range of values for the associated parameter.

7202 Wrong Format (<t>) in Configuration File

See error 7201.

7203 Value Out of Range in Configuration File, Must Be Between <x> And <y>

See error 7201.

7204 Unknown Option (<t>) On Line <x> of Configuration File

See error 7201.

7205 Value Must be a Valid DTMF Digit (0-9, *, #, or A - D)

See error 7201.

7206 Option Not Available (<t>)

This option is not provided with the software. See error 7201.

7301 Fax Queue is Full

The maximum number of documents waiting in queue to be sent has been reached. If this error persists, consider adding additional fax hardware for high traffic considerations.

7302 Internal Fax-Queue Error <x> (Data = <y>)

This is an internal error. If problem persists, contact technical support.

7401 Internal Fax Error <x>. Data = <y>

This is an internal error. If problem persists, contact technical support.

7402 Fax: <t>, line <y> (fax port <x>)

An error has occurred on the associated fax port. If error persists, check for hardware faults on the fax board or hardware interrupt conflicts within the computer.

7403 Unable to Find Fax Document <t>

The named document file is missing, corrupted, or not in the proper directory.

7404 Unable to Create Fax Information

This is an internal error. If problem persists, contact technical support.

7405 Unable to Create Serial Number File in Directory <t>

This is an internal error. If problem persists, contact technical support.

7406 Fax Channel <x> Failed Initialization (Result = <t>)

This is an internal error. Re-boot the PC. If problem persists, contact technical support.

7407 Cannot Disable Auto-Answer on Fax Channel <x> (Result = <t>)

This is an internal error. If problem persists, contact technical support.

7408 Fax Call Aborted on Line <x>

This is an internal error. If problem persists, contact technical support.

7409 No Dial-Tone for Fax on Line <x>

While attempting to send a fax, no dial tone was detected. Make sure the fax ports are wired properly.

7410 Unable to Reach Fax Number <t> (After <x> Tries)

The Interchange made a number of attempts to send a fax to the specified number, but was unable to deliver the fax. The number was probably busy or invalid.

7411 Fax port waiting too long, line <x>

The Interchange was attempting to send a fax. The fax hardware reported that it was in a ‘waiting’ state, but remained in that state for more than 90 seconds.

7412 Error <x> reported while attempting to start fax module

The Interchange was unable to initialize the fax module.

7413 Invalid fax status (<y>) reported on line <x>

The Interchange was attempting to send a fax. The fax hardware reported that it was in an invalid state.

7501 Mail Box <x> in Invalid State (<y>). Call Terminated

This is an internal error. If problem persists, contact technical support.

7601 Mail Box <x> in Invalid State <y> While Retrieving Faxes

This is an internal error. If problem persists, contact technical support.

7702 Cannot Schedule Message From Box <x> to Box <y> - Queue is Full

The maximum number of messages scheduled for future delivery has been reached.

7703 Cannot Create Schedule-Message File <t>

This is an internal error. If problem persists, contact technical support.

7704 Error <x> Opening Schedule-Message File <t>

This is an internal error. If problem persists, contact technical support.

7705 Unable to Deliver Scheduled Message From Box <x> To Box <y>

This is an internal error. If problem persists, contact technical support.

7706 Entry <x> in Schedule-Message File Was Corrupted (<y>)

This is an internal error. If problem persists, contact technical support.

7707 Cannot Create Schedule-Message <t> From Box <x> To Box <y>

This is an internal error. If problem persists, contact technical support.

7708 Cannot Dequeue Schedule-Message <t> From Box <x> To Box <y>

This is an internal error. If problem persists, contact technical support.

7801 Error Creating Telemarketing Retry Queue

This is an internal error. If problem persists, contact technical support.

7802 Read Error Adding Entry To Telemarketing Queue (Data = <x>)

This is an internal error. If problem persists, contact technical support.

7803 Telemarketing Retry Queue Header is Corrupted (Data = <x>)

This is an internal error. If problem persists, contact technical support.

7804 Telemarketing Retry Queue Corrupted (Data <x>, <y>, <t>)

This is an internal error. If problem persists, contact technical support.

7901 Error <x> Opening Port COM<y>

See error 6901.

7902 Error <x> Setting Speed on Port COM<y>

See error 6901.

7903 Error <x> Setting Parity on Port COM<y>

See error 6901.

7904 Error <x> Setting Data Bits on Port COM<y>

See error 6901.

7905 Error <x> Setting Stop Bits on Port COM<y>

See error 6901.

7906 Error <x> Closing Port COM<y>

See error 6901.

7907 Error <x> Sending Data to Port COM<y>

See error 6901.

7908 Error <x> Reading Data From Port COM<y>

See error 6901.

8101 ACD Box <x> in Invalid State <y>

This is an internal error. If the problem persists, contact technical support.

8201 IVR Box <x> In Invalid State <y>

This is an internal error. If the problem persists, contact technical support.

8301 Account Box <x> In Invalid State <y>

This is an internal error. If the problem persists, contact technical support.

8401 Network Not Detected (Are Network Drivers Loaded?)

The Interchange was programmed to communicate with VCM over a local area network (LAN). However, the Interchange was unable to detect the network. Make sure you have loaded the network drivers in the AUTOEXEC.BAT file. Make sure you have loaded the Netbios emulator for the network. For more information, contact the LAN administrator.

8402 Unable to initialize LAN interface

The Interchange was unable to initiate communication with the Local Area Network (LAN). Make sure all required network drivers are loaded. . For more information, contact the LAN administrator.

8501 Unknown Protocol <x> In Use on LAN

This is an internal error. If the problem persists, contact technical support.

8601 Invalid Data (<y>, <t>) in LAN Login Record For Line <x>

This is an internal error. If the problem persists, contact technical support.

8602 Not Enough Memory to Log in New User (<x> Logged In)

The Interchange ran out of conventional memory when it tried to allow a VCM user to log in. The message indicates the number of users currently logged in.

8603 Login Cross-Check <x> Failed. Data =<y>

This is an internal error. If the problem persists, contact technical support.

8604 Login Audit Error <x>. Data =<t>

This is an internal error. If the problem persists, contact technical support.

8701 Cannot Find LAN Fax Control File <t>

A VCM user tried to send a fax via the Interchange. The Interchange was unable to access the file that it uses for VCM fax record-keeping. The file was probably corrupt or missing. The Interchange created a new version of the file. Some pending faxes (waiting to be sent) may be lost when the new file was created.

8801 LAN Module in Invalid State <y>

This is an internal error. If the problem persists, contact technical support.

8802 Login Record Corrupt on Line <x>. Stored Line = <y>.

This is an internal error. If the problem persists, contact technical support.

8901 Cannot Create Directory File <t>

The Interchange was unable to create the file indicated. VCM uses this file to create its own directory of mailboxes. Make sure the Interchange computer has network write access to the indicated directory.

8902 Cannot Add Box <x> To Directory File <t>

While creating the directory file used by VCM, the Interchange was unable to add the indicated box to the file. VCM uses this file to create its own directory of mailboxes. Make sure the Interchange computer has network write access to the indicated directory

9101 Fax-Transfer Box <x> In Invalid State <y>

This is an internal error. If the problem persists, contact technical support.

9102 Cannot Find File <t>. Exit and Run EXTNS Utility

While processing a fax call, the Interchange was unable to find the file containing the extension numbers of its fax-enabled ports. Exit to DOS, and run the EXTNS utility. This allows you to enter the information the Interchange requires.

9201 Fax-Transfer Box <x> In Invalid State <y>

This is an internal error. If the problem persists, contact technical support.

9202 Cannot Create Receive-Area For Incoming Fax on Line <x>.

The Interchange was unable to allocate a memory buffer into which it could receive a fax document.

9203 Status <x> Reported While Receiving Fax on Line <y>

While receiving an incoming fax document, the Interchange encountered a bad status value from the fax hardware. The Interchange stops receiving and clears the call. The various status values are described below:

TABLE 8.

Status	Description
1	The document file has been opened.
2	The document file has been moved.
3	The document file has been deleted.

9204 Line <y> Was Receiving Fax For <x> Minutes (Data =<t>)

While receiving an incoming fax document, the Interchange found that the line was in a receive state for more than a reasonable amount of time. As a safety precaution (to prevent the lines from being tied up under error conditions), the Interchange cleared the line. What constitutes a *reasonable* time can be defined using the configuration file VM.CFG (FAX TIMEOUT parameter).

9205 Result <x> Reported From GET_FAX on Line <y> (Data =<t>)

While the Interchange was receiving an incoming fax document, the fax hardware reported a completion result indicating that there was a problem. The various result codes are as follows:

TABLE 9.

Code	Description		Result Code	Description
4	Received data lost		642	Bad PCX file header
258	File not found		643	Unexpected end-of-file
259	Path not found		644	Unexpected disconnect
260	Too many open files		770	Cannot find file
261	Access denied		771	Cannot find path
263	Memory corrupted		1025	Remote unit not Group 3 compatible
264	Insufficient memory		1027	Remote unit requested disconnect
269	Invalid data		1030	Excessive line noise
271	Invalid drive		1037	Remote unit disconnected
277	Drive not ready		1045	Tried to receive from incompatible hardware
287	General failure		1055	Unexpected end-of-file while receiving
641	Bad phone number			

9206 Status <x> reported while receiving fax on line <y>

See error 9203.

9207 Could not retrieve received fax on line <x>

The Interchange was receiving a fax. The fax module indicated that the fax had been received completely. However, when the Interchange tried to place the fax in the appropriate box, the fax module did not make the document available.

9301 Unknown Answer-Type <y> For Question <x> In Q-Box <t>

The Interchange tried to play the specified answer from the Question box indicated, but the answer-type was not valid (the valid answer types are VOICE and DIGITS).

9304 Group-Box <x> Is Full, and Cannot Accept Messages

The specified Group box has no room for new messages. The members of the Group box should delete old messages. A Group box message is not deleted from the Group box until *all* members have asked for it to be deleted. Once all members have asked for the message to be deleted, the Interchange deletes it the following midnight.

9305 Group-Box <x> is Full, Message Discarded

The specified Group box has no room for new messages. The members of the Group box should delete old messages. A Group box message is not deleted from the Group box until *all* members have asked for it to be deleted. Once all members have asked for the message to be deleted, the Interchange deletes it the following midnight.

9306 Cannot Deliver Message To Box <x>, Box Type <y> Is Invalid

An attempt was made to deliver a message to the specified box, but the box type is not a mailbox or a Group box. The message was discarded.

9307 Cannot Confirm Receipt of Message. Sender = <x>, Receiver = <y>

While processing a message that was marked for receipt-confirmation, the Interchange was unable to notify the sender that his/her message was received. If the problem persists, contact technical support.

9308 Cannot Play Voice Menu <x>

The Interchange was unable to play a certain voice menu. This is an internal error. Contact technical support.

9401 Unable to Deliver Message to Box <x>. Box Type <y> is Invalid

An attempt was made to deliver a message to the specified box, but the box type is not a mailbox or a Group box. The message was discarded.

9501 Netbios Error <x> In <t>. Data = <y>.

Netbios reported an error while the Interchange was trying to send or receive information. If the problem persists, contact technical support.

9502 Overflow Occurred while Sending Network Messages

The local area network was busy and was unable to keep up with the Interchange's requests to send information.

9503 Netbios Not Responding (<x>)

The Interchange was programmed to communicate with VCM over a local area network (LAN). However, the Interchange was unable to detect the network. Make sure you have loaded the network drivers in the AUTOEXEC.BAT file. Make sure you have loaded the Netbios emulator for the network. For more information, contact the LAN administrator.

9504 Not Enough Memory to Load Network Module

The Interchange ran out of conventional memory while trying to load the LAN module.

9601 Not Enough Memory to Load PCIU Module

The Interchange ran out of conventional memory while trying to load the PCIU module.

9602 PCIU Receive Queue is Full

The Interchange was unable to handle all the messages coming from users of VCM. If the problem persists, contact technical support.

9603 Attempt to Send Unknown Message Type <x> to PCIU

This is an internal error. If the problem persists, contact technical support.

9604 Unknown Message Type <x> Received from PCIU

A message was received from a VCM user that the Interchange did not recognize. If the problem persists, copy the COMDIAL.LNK file from the distribution disks into the Interchange directory. If the problem persists, contact technical support.

9701 Not Enough Memory to Load PCIU Module

The Interchange ran out of conventional memory while trying to load the PCIU module.

9702 Tried to Send Unknown Message Type <x> to PCIU

This is an internal error. If the problem persists, contact technical support.

9801 Call-Record Module in Invalid State (<x>)

This is an internal error. If the problem persists, contact technical support.

9901 Mail box <x> in invalid state. Call terminated.

This is an internal error. If the problem persists, contact technical support.

9902 Unknown digit type <x> received on line <y>

The voice board reported a digit to the Interchange that was neither DTMF or Dial Pulse. If error persists, replace the voice board.

10001 Key error <x>. Data=<t>

An error was detected while reading the security key. Ensure the key is connected to a printer port. If the problem persists, contact technical support.

10002 Key not detected

The security key was not detected. Ensure the key is connected to a printer port. If the problem persists, contact technical support.

10401 Not enough conventional memory for line information

After finding that there was not enough EMS memory to hold its line-related information, the Interchange attempted to use DOS conventional memory. However, there was not enough conventional memory either.

10402 Label information corrupted

The Interchange was unable to read the internal label information contained in the file ACCER.DAT. Copy the original (ACCER*.DAT) from the Interchange CD or diskettes.

10403 Label information file missing

The Interchange was unable to open the file ACCER.DAT, containing the label information. Copy the original (ACCER*.DAT) from the Interchange CD or diskettes.

10404 Not enough memory to run program (you need at least <x>KB more).

The computer does not have enough conventional memory to load the Interchange. Remove any other TSR programs and re-boot the computer. Type MEM at the \VM directory prompt (depending on system setup) and verify that there is 640 K bytes total conventional memory available.

10405 Cannot allocate enough file handles

The Interchange needs to be able to open several files at once while it is running. DOS was unable to guarantee that there would be enough file handles available. Make sure the CONFIG.SYS file sets the FILES setting to at least 40.

10501 Error <x> Opening System-Database File "<t>"

The Interchange was unable to open the database file containing the system information (SDTABASE.DVM). If this error is encountered during start-up, the Interchange automatically creates a new system-information file, using its own default values. You should then go to the SYSTEM INFORMATION menu, and update the information on each screen. (The information displayed on the LINE STATUS screen has not been affected). Alternatively, you can restore the latest backup of the system information database file SDTABASE.DVM.

10502 Error <x> Opening Line-Database File "<t>"

The Interchange was unable to open the database file containing the line information (LDTABASE.DVM). If this error is encountered during start-up, the Interchange automatically creates a new line-information file, using its own default values. You should then go to the LINE INFORMATION screen, and update the information. The information displayed on the LINE INFORMATION screen is the only information that has been affected.

10503 Error <x> Opening Box-Database File "<t>"

The Interchange was unable to open the database file containing the box information (BDTABASE.DVM). In most cases, this error is generated because the file has been deleted, or there is a hard drive problem. If this error is encountered during start-up, the Interchange automatically creates a new box information file. This new file does not contain any of the boxes, only the system reserved boxes (those numbered between 9900 and 9999). You must either re-enter all box information or restore the latest backup of the database files (*.DVM). If you are unsure of how to proceed, contact technical support before you do anything.

10504 Cannot open message database file "<t>" (<x>)

The Interchange was unable to open the database file containing the message information (MDTABASE.DVM). In most cases, this error is generated because the file has been deleted, or there is a hard drive problem. If this error is encountered during start-up, the Interchange automatically creates a new file.

10505 Cannot add box <x> to database

The Interchange was unable to add the indicated box to the database. Exit to DOS, and check that the box's file is not corrupt. Also, confirm that the hard drive has sufficient space.

10506 Cannot read box <y> information from database (<x>)

The Interchange was unable to read information from the file containing the database box information (BDTABASE.DVM). Exit to DOS, and check that the file is not corrupt. Also, confirm that the hard drive has sufficient space.

10507 Cannot write box information to file "<t>"

The Interchange was unable to write information to the file containing the database box information (BDTABASE.DVM). Exit to DOS, and check that the file is not corrupt. Also, confirm that the hard drive has sufficient space.

10508 File pointer error accessing box <x> (pointer = <t>)

This error can be generated when the Interchange is updating the file MDTABASE.DVM, which contains information on messages held in each mailbox. If the problem persists, check the hard drive for errors. If you do not have a backup, delete the file, and run the utility MSGAUDIT to allow the Interchange to rebuild the file.

10510 Cannot rename database file <t> (error = <x>)

When the Interchange is compressing the database (to save hard drive space), it uses a temporary file. When the compressing operation is complete, the Interchange renames the temporary file to the proper database filename BDTABASE.DVM. This error message indicates that the Interchange was unable to rename the temporary file. Exit to DOS, and rename the file yourself. From the DOS prompt, type:

```
RENAME BDTABASE.TMP BDTABASE.DVM
```

10511 Cannot re-index database (error = <x>)

When the Interchange is shutting down, it compresses the box database to make processing more efficient. During compression, the Interchange encountered an error. Normal operation will not be affected. If the problem persists, contact technical support.

10512 Cannot allocate auxiliary buffer for box <x>

This error can be generated when the Interchange is updating the file MDTABASE.DVM, which contains information on the messages held in each mailbox. If the problem persists, check the hard drive for errors. If you do not have a backup, delete the file, and run the utility MSGAUDIT to allow the Interchange to rebuild the file.

10513 Error <x> reading message <t> info for box <y>

The Interchange encountered an error while trying to read the database files for the specified box. The problem is probably localized to the database file MDTABASE.DVM. If the problem persists, check the hard drive for errors. If you do not have a backup, delete the file, and run the utility MSGAUDIT to allow the Interchange to rebuild the file.

10514 Cannot initialize auxiliary module

The Interchange was not able to initialize its internal tables. Re-start the system.

10515 Cannot delete message <y> in box <x>

Due to an internal error, the Interchange was unable to delete a message from the specified box. The problem is probably localized in the database file MDTABASE.DVM. If the problem persists, check the hard drive for errors. If you do not have a backup, delete the file, and run the utility MSGAUDIT to allow the Interchange to rebuild the file.

10516 File pointer error <x> in box <y>

This error can be generated when the Interchange is updating the file MDTABASE.DVM, which contains information on messages held in each mailbox. If the problem persists, check the hard drive for errors. If you do not have a backup, delete the file, and run the utility MSGAUDIT to allow the Interchange to rebuild the file.

10517 Error <x> writing box <y> to database

The Interchange was unable to update its database with information for the specified box. The problem is probably localized in the BDTABASE.DVM file or the MDTABASE.DVM file. If the problem persists, restore backups of these files. If that does not solve the problem, contact technical support.

10518 Link error <x> while accessing box <y>

This error is encountered while updating the file MDTABASE.DVM, containing information on the messages held in each mailbox. If the problem persists, check the hard drive for errors. If you do not have a backup, delete the file, and run the utility MSGAUDIT to allow the Interchange to rebuild the file.

10519 File “<t>” missing while auditing box <x>

During its automatic database audit, the Interchange found that a voice message file was missing. This may be due to disk errors or a power failure, for example. The Interchange noted and corrected the problem by updating its database. No further action is required. If the problem persists, contact technical support.

10520 File “<t>” missing while auditing Group box <x>

During its automatic database audit, the Interchange found that a voice message file was missing for a Group box message. This may be due to disk errors or a power failure, for example. The Interchange noted and corrected the problem by updating its database. No further action is required. If the problem persists, contact technical support.

10521 Link error <x> encountered while auditing box <y>

An internal error was detected during the Interchange’s automatic audits. If the problem persists, try deleting the box, then adding it again.

10522 Error <x> while allocating space for box <y>

The Interchange had a problem allocating memory or disk space for a new box. Check that the disk is not full.

10523 Error <x> while reading header info for box <y>

An error was encountered while the system was reading information about the messages in a box. If the problem persists, try deleting the box, and adding it again. If that does not solve the problem, run the utility MSGAUDIT to re-build the message database.

10524 Error in new-message counts for box <x> (<t>)

During its automatic database audit, the Interchange found inconsistencies in the database. It fixed these automatically. No further action is required. If the problem persists, contact technical support.

10525 Error in old-message counts for box <x> (<t>)

During its automatic database audit, the Interchange found inconsistencies in the database. It fixed these automatically. No further action is required. If the problem persists, contact technical support.

10526 Cannot initialize box index

The Interchange maintains an internal list of boxes while it is running. It was unable to create this list. If the problem persists, contact technical support.

10527 Cannot read box index

The Interchange maintains an internal list of boxes while it is running. It was unable to read this list. If the problem persists, contact technical support.

10528 Error <x> updating box index

The Interchange maintains an internal list of boxes while it is running. It was unable to update this list. If the problem persists, contact technical support.

10529 Audit cross-check failed (boxes are <x> and <y>)

During its automatic database audit, the Interchange found inconsistencies in the database. It fixed these automatically. No further action is required. If the problem persists, contact technical support.

10530 Cannot add box <x> to database – already exists

An attempt was made to add a box to the database. The box already exists.

10701 Invalid Month (<x>) Encountered While Reading Date

While preparing to say a date, the Interchange encountered a value for the month that is not between 1 and 12. Check for file corruption in the message directory.

19. MAPPING MENU OPTIONS

Every voice menu in the VP system can be configured so that any digit can correspond to any option. For example, the menu that offers callers the option to send or re-record their message is:

"*To send this message, press 1.*
To replay the message, press 2.
To re-record the message from the beginning, press 3.
Or, to cancel the message, press 4."

You can change this menu so that callers can press different keypad keys to invoke any or all of these options. You indicate the key mapping you want to use in the VM.CFG configuration file. In the above example, if you want to change the menu so the caller presses "**R**" (the 7 key) to re-record the message, you make the following entry in the VM.CFG file:

MENU.SENDMSG.RECORD = 7

If you want to disable a menu option, simply enter an "X" as the digit corresponding to the option. For example, to disable the P.A. call announcing option available to callers hearing a mailbox's personal greeting, you include the following line in the VM.CFG file:

MENU.MBOX.PA = X

Note:	If you change menu mapping, you must re-record the appropriate system prompts to indicate the keypress modifications.

This section includes a list of all the voice menus in the VP system. Shown with each menu are the prompts played in conjunction with the menu and the menu options, as you would enter them in the VM.CFG file to map them to different key presses. The default keypress associated with each menu option is shown in parentheses beside the option.

For the contents of the default prompt recordings, see section 15. For information on adjusting the VM.CFG file, see section 12.

Main Menu Played when an Owner Opens a Mailbox

Prompts: 65, 66, 67

menu.main.listen	(1)	
menu.main.send	(2)	
menu.main.options	(3)	
menu.main.qbox	(4)	
menu.main.language	(5)	
menu.main.supervisor	(6)	
menu.main.fax	(7)	(only if a Fax module is enabled)
menu.main.quickold	(8)	

menu.main.quick (9)

menu.main.outdial (0)

menu.main.wakeup (*)

menu.main.exit (#)

Menu Offered to Mailbox Owner when He/She Selects “Listen to Messages”

Prompt: 68

menu.listen.newvmail (1)

menu.listen.oldvmail (2)

menu.listen.newemail (3)

menu.listen.oldemial (4)

menu.listen.newall (5)

menu.listen.oldall (6)

menu.listen.exit (#)

menu.listen.getfax (*) (only if a Fax module is enabled)

Menu Played when Mailbox Owner Selects the Options Menu to Make Changes

Prompt: 69

menu.change.name (1)

menu.change.greeting (2)

menu.change.password (3)

menu.change.transfer (4)

menu.change.notify (5)

menu.change.page (6)

menu.change.schedule (7)

menu.change.pdl (8)

menu.change.tutorial (9)

menu.change.acd (0)

menu.change.edit (*)

menu.change.exit (#)

Menu Options when Mailbox Owner Selects the “Review Messages For Future Delivery” Option

Prompt: 189

menu.sreview.play (1)

menu.sreview.next (2)

menu.sreview.delete (4)

menu.sreview.exit (#)

Menu Options the Mailbox Owner Has when His/Her Transfer/Pager/Notification Number is Being Played

Prompt: 123

menu.feature.change (1)

menu.feature.toggle (*)

menu.feature.exit (#)

Menu Played when Mailbox Owner Chooses to Forward a Message with a Comment

Prompt: 124

menu.comment.prefix (1)

menu.comment.append (2)

menu.comment.none (3)

menu.comment.exit (#)

Valid Options while a Message is Being Played and after a Mailbox Owner Has Listened to One of His/Her Messages

Prompt: 71

menu.message.replay (1)

menu.message.next (2)

menu.message.savenew (3)

menu.message.delete (4)

menu.message.volume (5)

menu.message.options (6)

menu.message.tagfax (7) (O*nly if a Fax module is enabled*)

menu.message.rew (8) *(rewind)*

menu.message.ff (9) *(fast-forward)*

menu.message.pause (0)

menu.message.getfax (*) *(Only if a Fax module is enabled)*

menu.message.exit (#)

Second Digit Selections when Mailbox Owner Selects "Other Message Options" (Default Digit 6 in Previous Menu) after Listening to a Message

Prompts: 285, 286, 287, 178

menu.msg.options.forward(1)

menu.msg.options.reply (2)

menu.msg.options.xfer (3)

menu.msg.options.delete (4)

menu.msg.options.timedate(5)

menu.msg.options.exit (#)

Menu Played when Mailbox Owner Selects "Listen to Questionnaire Answers" from the Main Menu

Prompt: 82

menu.question.new (1)
menu.question.old (2)
menu.question.exit (#)

Valid Options when Questionnaire Answers Are Being Played and when Mailbox Owner Has Just Listened to a Questionnaire Answer

Prompt: 70

menu.answer.replay (1)
menu.answer.next (2)
menu.answer.savenew (3)
menu.answer.delete (4)
menu.answer.volume (5)
menu.answer.timedate (6)
menu.answer.rew (8) *(rewind)*
menu.answer.ff (9) *(fast-forward)*
menu.answer.pause (0)
menu.answer.exit (#)

Menu Played when Mailbox Owner Selects "Change Your Name" from the Make Changes Menu

Prompt: 94

menu.chgname.play (1)
menu.chgname.record (2)
menu.chgname.delete (3)
menu.chgname.exit (#)

Menu Played when Mailbox Owner Selects “Change Your Greeting” from the Make Changes Menu

Prompt: 93

menu.chggreet.play	(1)	
menu.chggreet.record	(2)	
menu.chggreet.delete	(3)	
menu.chggreet.category	(4)	*(Only if Talking Classifieds module is enabled)*
menu.chggreet.number	(5)	
menu.chggreet.exit	(#)	

Menu Played when Mailbox Owner Wants to Administer ACD Group

Prompt: 236

menu.acdadmin.add	(1)
menu.acdadmin.remove	(2)
menu.acdadmin.exit	(#)

Menu Played to Caller when Offering Option to Hold for ACD Group

Prompt: 219

menu.acdq.other	(1)
menu.acdq.hold	(2)
menu.acdq.opr	(0)

Options Available to Caller Listening to the Directory

Prompt: 131

menu.dir.accept	(1)
menu.dir.reject	(2)
menu.dir.restart	(3)
menu.dir.wildcard	(*)
menu.dir.exit	(#)

Menu Played to a Caller after He/She Has Recorded a Message and Pressed # for Options

Prompt: 125 for messages from external callers
Prompt: 165 for messages from mailbox owners

menu.sendmsg.send	(1)	
menu.sendmsg.replay	(2)	
menu.sendmsg.record	(3)	
menu.sendmsg.cancel	(4)	
menu.sendmsg.addfax	(7)	*(Only if a Fax module is enabled)*
menu.sendmsg.append	(8)	
menu.sendmsg.recap	(9)	
menu.sendmsg.opr	(0)	
menu.sendmsg.sendcnfrm	(5)	*(Valid only when message is being*
menu.sendmsg.multiple	(6)	(*sent from within a mailbox)*
menu.sendmsg.schedule	(*)	

Menu Played to a Caller After He/She Has Recorded a Message and Pressed 1 to Send

Prompt: 230

menu.sendspcl.normal	(1)
menu.sendspcl.urgent	(2)
menu.sendspcl.private	(3)
menu.sendspcl.sendcnfrm	(5)
menu.sendspcl.schedule	(*)

Options Available to a Caller while the VP system is Playing a Mailbox Personal Greeting

Prompts: 2 and 3

menu.mbox.record	(1)	
menu.mbox.page	(2)	
menu.mbox.other	(3)	
menu.mbox.transfer	(4)	
menu.mbox.pa	(5)	
menu.mbox.hold	(6)	
menu.mbox.faxmail	(7)	*(Only if a Fax module is enabled)*
menu.mbox.faxdirect	(8)	*(Only if a Fax module is enabled)*
menu.mbox.vm	(#)	*(Voice mail gateway)*
menu.mbox.opr	(0)	

Menu Played to a Mailbox Owner when He/She Chooses “Supervisor Functions” from the Main Menu

Prompt: 142

menu.supv.mbox	(1)
menu.supv.rbox	(2)
menu.supv.qbox	(3)
menu.supv.port	(4)
menu.supv.broadcast	(5)
menu.supv.daymode	(6)
menu.supv.exit	(#)

Menu Played to a Supervisor when He/She Chooses “Box Administration” from the Supervisor Main Menu

Prompts: 242 and 243

menu.supv.box.add	(1)
menu.supv.box.delete	(2)
menu.supv.box.modify	(3)
menu.supv.box.suspend	(4)
menu.supv.box.restore	(5)
menu.supv.box.reset	(6)
menu.supv.box.exit	(#)

Menu Played to a Supervisor when He/She is Asked if He/She Wants to Change a Parameter

Prompt: 246

menu.supv.mod.change (1)
menu.supv.mod.exit (#)

Menu Played to a Supervisor when He/She Wants to Change Day / Night Service Mode

Prompt: 254

menu.supv.mode.day (1)
menu.supv.mode.night (2)
menu.supv.mode.lunch (3)
menu.supv.mode.exit (#)

Menu Played to a Supervisor when He/She Wants to Enable or Disable a Port

Prompt: 244

menu.supv.port.disable (1)
menu.supv.port.enable (2)
menu.supv.port.exit (#)

Menu Played to a Supervisor when He/She Wants to Modify a Routing Box

Prompt: 245

menu.supv.rbox.greeting (1)
menu.supv.rbox.routing (2)
menu.supv.rbox.exit (#)

Menu Played to a Supervisor when He/She Wants to Modify a Routing Box Routing Digit Other Than 0 Through 9

Prompt: 248

menu.supv.spcl.nodgts (1)
menu.supv.spcl.invalid (2)
menu.supv.spcl.voice (3)
menu.supv.spcl.star (*)
menu.supv.spcl.pound (#)

Menu Played to a Supervisor when He/She Chooses “Broadcast Message” from the Supervisor’s Menu

Prompt: 190

menu.broadcast.play (1)
menu.broadcast.record (2)
menu.broadcast.delete (3)
menu.broadcast.exit (#)

Options Available when Participating in the Tutorial

Prompts: 199, 201, 203

menu.tutorialyes (1)
menu.tutorial.no (2)
menu.tutorial.cancel (*)
menu.tutorial.exit (#)

Talking Classifieds Main Menu and Subsequent Menu ("Press 1 To Hear a Sample of Our Listings, or Press 2 to Choose New Categories")

Prompt: 1003 *in the Talking Classifieds module*

menu.tc.main.play (1)
menu.tc.main.chg (2)
menu.tc.main.exit (*)

Talking Classifieds Caller Options while Listening to Listing Box Questions

menu.tc.repeatquestion (0)
menu.tc.wildcard (#) *(also used by a Listing box owner to remotely assign the 'wildcard' value to a category)*

Talking Classifieds Menu Played Between Listings

Prompt: 1002 *in the Talking Classifieds module*

menu.tc.list.next (1)
menu.tc.list.chg (2)
menu.tc.list.xfer (3)
menu.tc.list.info (4)
menu.tc.list.replay (5)
menu.tc.list.exit (*)

Talking Classifieds Menu Played to Caller After the VP system Has Completed Automatic Allocation of a New Mailbox

Prompt: 1014

menu.alloc.number (1)
menu.alloc.general (2)
menu.alloc.proceed (3)

Menu Played to Called Party when Receiving a Screened Transfer

Prompt: 99

menu.screen.accept (1)
menu.screen.playgrt (2)
menu.screen.other (3)
menu.screen.pickgrt (4)
menu.screen.gotobox (5)
menu.screen.recordcall (6)

Menu Played when Mailbox Owner Selects Personal Distribution Lists from Options Menu

Prompt: 266

menu.pdl.add (1)
menu.pdl.remove (2)
menu.pdl.list (3)
menu.pdl.name (4)
menu.pdl.exit (#)

Menu Played when Mailbox Owner Selects Name from Personal Distribution List Menu

Prompt: 267

menu.pdl.name.play (1)
menu.pdl.name.record (2)
menu.pdl.name.exit (#)

Menu Played when Mailbox Owner Selects Edit from Options Menu

Prompt 276

menu.msgedit.play (1)
menu.msgedit.next (2)
menu.msgedit.delete (3)
menu.msgedit.exit (#)

20. INSTALLING VOICE BOARDS

20.1 Using Dialogic Voice Boards

The following Dialogic boards are described in this section:

- DIALOG/4
- ProLine/2V
- D/41D
- D/41E
- D/41H
- D/4PCI
- D160SC-LS

Dialogic boards are packed in static-proof bags. Make sure you are grounded when you remove the boards from the bags. You can ground yourself by touching the frame of the computer.

All Dialogic boards must be configured via hardware and software. You configure the hardware by installing or removing shorting jumpers on the boards and switch settings. On DOS-based systems, you configure the software by modifying a file named DIALOGIC.CFG. This file is stored by default in the \VM directory. On Windows-based systems, you modify Dialogic board settings using the Dialogic Configuration Manager program. This program is accessible from the Windows desktop by selecting the Start button then Programs / Dialogic System Software / Dialogic Configuration Manager.

20.1.1 DIALOGIC BOARD INSTALLATION CONSIDERATIONS

Each Dialogic board installed in the VP system must be assigned a unique address in memory using the switch settings explained later in this section. Board 1 (as determined by the switch settings) is assigned memory address 1, board 2 is assigned memory address 2, etc.

The VP system ports begin with port 1 on board 1, but the alignment of the rest of the ports depends on the system configuration and the types of Dialogic boards used. For example, consider a 6 port system using one D/21D board and one D/41D board. If you address the D/21D board as board 1 and the D/41D board as board 2, then the VP system ports (lines) 1 and 2 reside on the D/21D board and ports 3-6 reside on the D/41D board.

If you reverse the above example and install the D/41D board as board 1 and the D/21D board as board 2, then the VP system ports 1-4 reside on the D/41D board and ports 5 and 6 reside on the D/21D board.

20.1.2 INSTALLING A DIALOG/4 BOARD

Configuring DIALOG/4 Jumper and Switch Settings

The positions of the jumpers and switches on the DIALOG/4 board are shown in Figure 20-1 DIALOG/4 Board20-1.

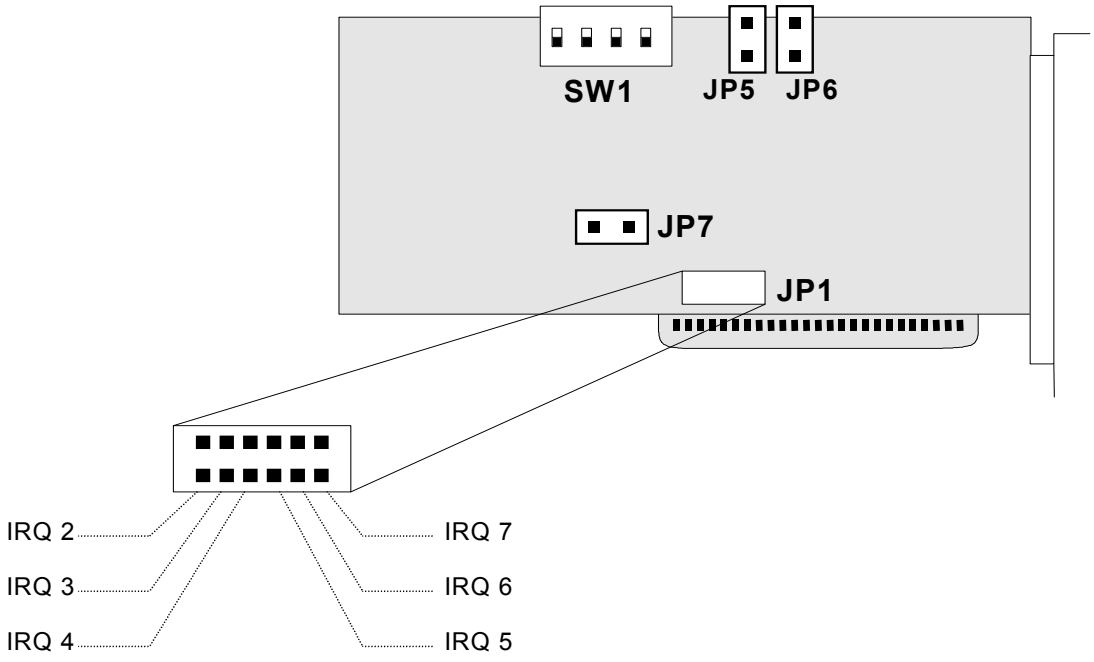


Figure 20-1 DIALOG/4 Board

Setting the DIALOG/4 Hardware Interrupt on DOS-based Systems

The VP system uses hardware interrupt IRQ5 by default. This requires that a shorting jumper be placed in position 4 of JP1.

Note:	If the system has more than one Dialogic board, all boards must have JP1 set to the same hardware interrupt setting.

If you need to use a different hardware interrupt, follow these steps:

Make sure the new interrupt chosen is not being used by any other hardware in the VP system PC.

Set the proper jumper on JP1 for the interrupt selected:

Position 1 = IRQ 2
Position 2 = IRQ 3
Position 3 = IRQ 4
Position 4 = IRQ 5
Position 5 = IRQ 6
Position 6 = IRQ 7

Edit the configuration file DIALOGIC.CFG to change the statement D41DINTERRUPT = 5 to the new IRQ value. To use a DOS editor to make changes to the file, type `EDIT DIALOGIC.CFG` then press <Enter> from the \VM prompt.

Edit the GOVM.BAT file. To use a DOS editor to make changes to the file, type `EDIT GOVM.BAT` and then press <Enter> from the \VM prompt.

Find the line beginning with the word TONEDNLD, and change the '-h5' to the new interrupt (for example, '-h4' for IRQ 4).

Find the line beginning D40DRV –I62 –Y –E, and change the number after the letter 'E' so it reflects the number of ports in the system multiplied by 16. If the system is an 8 port system, for example, the line should read D40DRV –I62 –Y –E128.

Setting the DIALOG/4 Hardware Interrupt on Windows-based Systems

The VP system uses hardware interrupt IRQ5 by default. This requires that a shorting jumper be placed in position 4 of JP1.

> **Note:** If the system has more than one Dialogic board, all boards must have JP1 set to the same hardware interrupt setting.

Make sure the new interrupt chosen is not being used by any other hardware in the VP system PC.

Set the proper jumper on JP1 for the interrupt selected:

Position 1 = IRQ 2
Position 2 = IRQ 3
Position 3 = IRQ 4
Position 4 = IRQ 5
Position 5 = IRQ 7
Position 6 = IRQ 10

Position 7 = IRQ 11

Position 8 = IRQ 12

Setting the DIALOG/4 Memory Address

The VP system uses memory addresses D0000, D2000, D4000… by default. Set the memory address of each board using switch SW1. Table 20-1 shows the position of each switch.

Board Number	SW1 Switch number				Address
	1	2	3	4	
1	off	off	off	off	D0000
2	off	off	on	off	D2000
3	off	on	off	off	D4000
4	off	on	on	off	D6000
5	on	off	off	off	D8000
6	on	off	on	off	DA00
7	on	on	off	off	DC00
8	on	on	on	off	DE00

Table 20-1 DIALOG/4, D/41D, and ProLine/2V Board Memory Addresses

Setting Other DIALOG/4 Hardware Settings

Jumper JP7 must be in place on the first Dialogic board installed in the system. It must be removed on all other boards in the system.

Jumpers JP5 and JP6 should be in the open position on all boards.

Configuring the DIALOG/4 Software on DOS-based Systems

When you run the System Setup utility, you are prompted to enter the number of lines (ports) being installed in the system. When you enter this number, the VP system automatically configures the Dialogic software. (Always select the actual number of ports being installed, even if the system will not be currently utilizing all ports. For example, if you are installing two 4-port Dialogic boards but are currently going to use only six ports, with two ports for future growth, you must still select 8 ports in the Setup utility.)

If you are adding new Dialogic boards to an existing system, you do not need to run the Setup utility again. Simply edit the Dialogic configuration file DIALOGIC.CFG and add an entry for each new board being installed:

A typical DIALOGIC.CFG file for two 4-port boards is shown below:

```
[Genload - All Boards]
BusType =None
D41DInterrupt=5
D41DAddress=D0000
D41DAddress=D2000
```

To add a board to an existing system, just add one line containing its address. The entry for each board should match the address for that board as shown in Table 20-1.

Configuring the DIALOG/4 Software on Windows-based Systems

To use Dialogic software to configure DIALOG/4 boards:

From the Windows desktop, double click on the Services icon. From the SERVICES screen that displays, highlight each of the following services, in the order presented, and click on the Stop button after each time you highlight a service:

1. PROXY E-MAIL CLIENT (present only on Windows-based systems running release 10.0 and later)
2. kvt voice mail manager
3. kvt database Manager service
4. kvt ftp server
5. dialogic

Be advised that when you stop the KVT VOICE MAIL MANAGER service, all calls currently being handled by the VP system are immediately terminated. To exit the SERVICES screen, click on the Close button.

From the Windows desktop, select the Start button, then choose Programs / Dialogic System Software / Dialogic Configuration Manager - DCM.

On the DIALOGIC CONFIGURATION MANAGER screen, click on the Action drop down menu, select the Add Device option. Next, under the Family area, highlight the board type D/x1D. Under the Model area, highlight Dialog/4. Click on the Next button. Finally, enter a board ID (for example, board1) for the board at the prompt and then select the Next button. There is a pause while the board is detected in the system.

On the DIALOGIC CONFIGURATION MANAGER PROPERTIES screen, confirm the configuration information is correct for the board (including the correct interrupt value is specified—IRQ 5 is recommended), then click on the OK button. If you must correct information displayed, select the item you need to correct, re-enter the value, select the Apply button, then click on the OK button.

The DIALOGIC CONFIGURATION MANAGER screen displays. Repeat steps 3-4 for each DIALOG/4 board in the system.

When information for each board has been entered, select the Service drop down menu, select Startup Mode, then select the AUTOMATIC option.

On the DIALOGIC CONFIGURATION MANAGER screen, select the File drop down menu, then select the Exit option.

To restart the VP system, restart the PC by clicking on the Start button, selecting Shutdown, verifying Restart is selected, and clicking on the OK button.

20.1.3 INSTALLING A PROLINE/2V BOARD

Configuring the ProLine/2V Jumper and Switch Settings

The positions of the jumpers and switches on the ProLine/2V board are shown in Figure 20-2 ProLine/2V Board20-2.

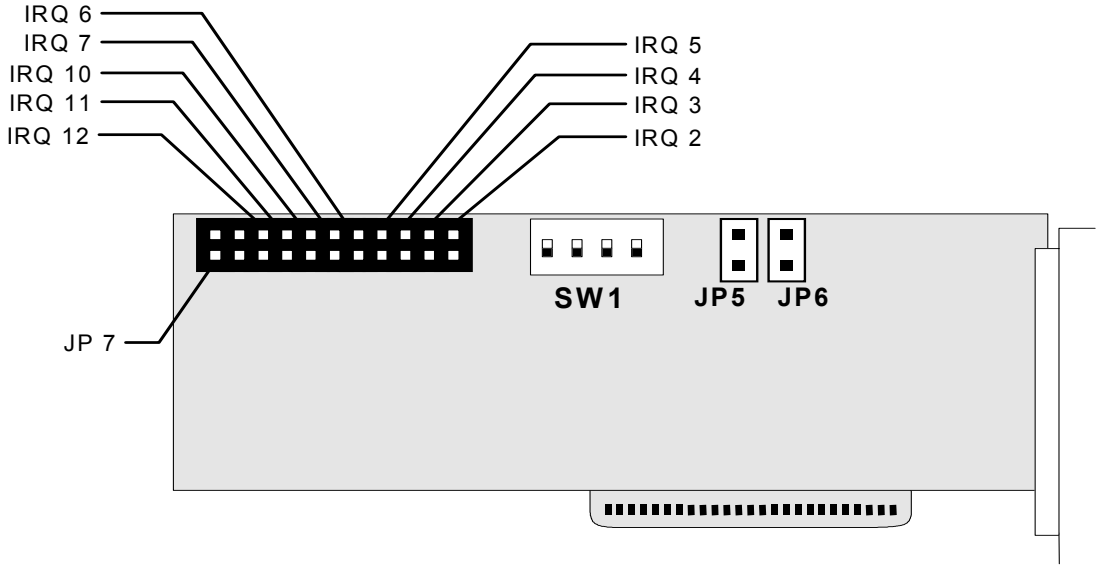


Figure 20-2 ProLine/2V Board

Setting the ProLine/2V Hardware Interrupt on DOS-based Systems

The VP system uses hardware interrupt IRQ5 by default. This requires that a shorting jumper be placed on the fourth jumper from the right.

> **Note:** If the system has more than one Dialogic board, all boards must use the same hardware interrupt setting.

If you need to use a different hardware interrupt, follow these steps:

Make sure the new interrupt chosen is not being used by any other hardware in the VP system PC.

Set the proper jumper, as shown in Figure 20-2 ProLine/2V Board20-2.

Edit the configuration file DIALOGIC.CFG to change the statement D41DINTERRUPT = 5 to the new IRQ value. To use a DOS editor to make changes to the file, type `EDIT DIALOGIC.CFG` then press <Enter> from the \VM prompt.

Edit the GOVM.BAT file. To use a DOS editor to make changes to the file, type `EDIT GOVM.BAT` then press <Enter> from the \VM prompt.

Find the line with the word TONEDNLD and change the '-h5' to the new interrupt (for example, '-h4' for IRQ 4).

Find the line beginning D40DRV –I62 –Y –E, and change the number after the letter 'E' so it reflects the number of ports in the system multiplied by 16. If the system is an 8 port system, for example, the line should read D40DRV –I62 –Y –E128.

Setting the ProLine/2V Hardware Interrupt on Windows-based Systems

The VP system uses hardware interrupt IRQ5 by default. This requires that a shorting jumper be placed on the fourth jumper from the right.

> **Note:** If the system has more than one Dialogic board, all boards must use the same hardware interrupt setting.

Make sure the new interrupt chosen is not being used by any other hardware in the VP system PC.

Set the proper jumper on JP1 for the interrupt selected:

Position 1 = IRQ 2
Position 2 = IRQ 3
Position 3 = IRQ 4
Position 4 = IRQ 5
Position 5 = IRQ 7
Position 6 = IRQ 10

Position 7 = IRQ 11

Position 8 = IRQ 12

Setting the ProLine/2V Memory Address

The VP system uses memory addresses D0000, D2000, D4000… by default. Set the memory address of each board using switch SW1. Table 20-1 shows the position of each switch.

Setting Other ProLine/2V Hardware Settings

Jumper JP7 must be in place on the first Dialogic board installed in the system. It must be removed on all other boards in the system.

Jumpers JP5 and JP6 should be in the open position on all boards.

Configuring the ProLine/2V Software on DOS-based Systems

When you run the System Setup utility, you are prompted to enter the number of lines (ports) being installed in the system. When you enter this number, the VP system automatically configures the Dialogic software. (Always select the actual number of ports being installed, even if the system will not be currently utilizing all of the ports. For example, if you are installing two 4-port Dialogic boards but are currently going to use only six ports, with two ports for future growth, you must still select 8 ports in the Setup utility.)

If you are adding new Dialogic boards to an existing system, you do not need to run the Setup utility again. Simply edit the Dialogic configuration file DIALOGIC.CFG and add an entry for each new board being installed:

A typical DIALOGIC.CFG file for two 4-port boards is shown below:

```
[Genload - All Boards]
BusType =None
D41DInterrupt=5
D41DAddress=D0000
D41DAddress=D2000
```

To add a board to an existing system, just add one line containing its address. The entry for each board should match the address for that board as shown in Table 20-1.

Configuring the ProLine/2V Software on Windows-based Systems

To use Dialogic software to configure ProLine/2V boards:

From the Windows desktop, double click on the Services icon. From the SERVICES screen that displays, highlight each of the following services, in the order presented, and click on the Stop button after each time you highlight a service:

1. PROXY E-MAIL CLIENT (present only on Windows-based systems running release 10.0 and later)
2. kvt voice mail manager
3. kvt database Manager service
4. kvt ftp server
5. dialogic

Be advised that when you stop the KVT VOICE MAIL MANAGER service, all calls currently being handled by the VP system are immediately terminated. To exit the SERVICES screen, click on the Close button.

From the Windows desktop, select the Start button, then choose Programs / Dialogic System Software / Dialogic Configuration Manager - DCM.

On the DIALOGIC CONFIGURATION MANAGER screen, click on the Action drop down menu, select the Add Device option. Next, under the Family area, highlight the board type Proline. Under the Model area, highlight Proline/2V. Click on the Next button. Finally, enter a board ID (for example, board1) for the board at the prompt and then select the Next button. There is a pause while the board is detected in the system.

On the DIALOGIC CONFIGURATION MANAGER PROPERTIES screen, confirm the configuration information is correct for the board (including the correct interrupt value is specified—IRQ 5 is recommended), then click on the OK button. If you must correct information displayed, select the item you need to correct, re-enter the value, select the Apply button, then click on the OK button.

The DIALOGIC CONFIGURATION MANAGER screen displays. Repeat steps 3-4 for each ProLine/2V board in the system.

When information for each board has been entered, select the Service drop down menu, select Startup Mode, then select the AUTOMATIC option.

On the DIALOGIC CONFIGURATION MANAGER screen, select the File drop down menu, then select the Exit option.

To restart the VP system, restart the PC by clicking on the Start button, selecting Shutdown, verifying Restart is selected, and clicking on the OK button.

20.1.4 INSTALLING A D/41D BOARD

Configuring the D/41D Jumper and Switch Settings

The positions of the jumpers and switches on the D/41D board are shown in Figure 20-3 D/4xD Board20-3.

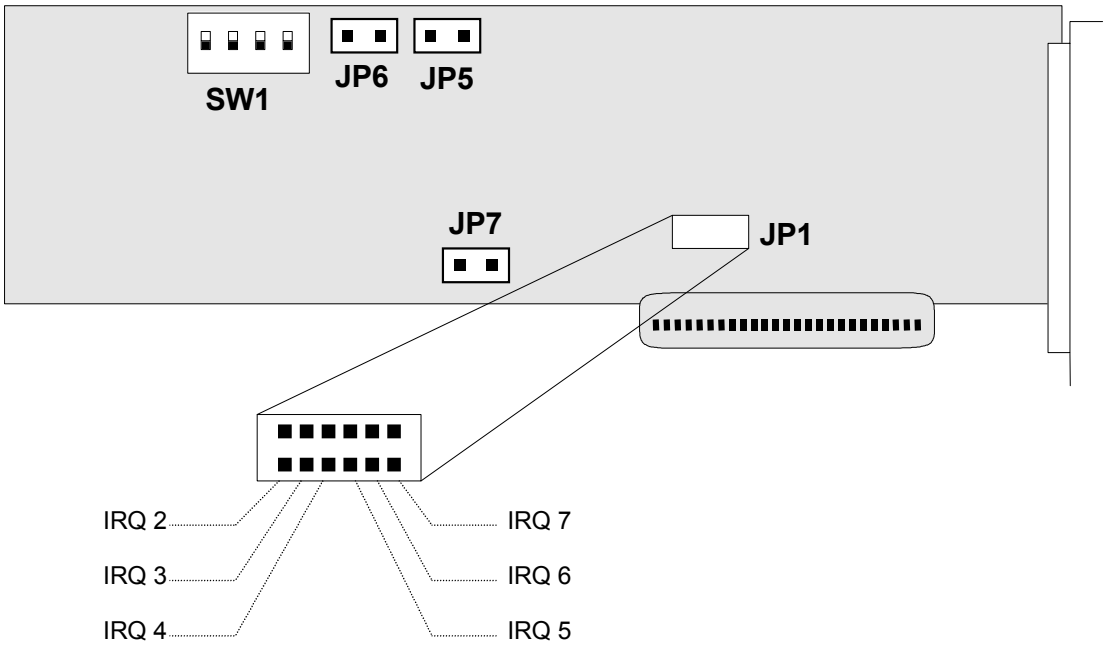


Figure 20-3 D/4xD Board

Setting the D/41D Hardware Interrupt on DOS-based Systems

The VP system uses hardware interrupt IRQ5 by default. This requires that a shorting jumper be placed in position 4 of JP1.

> **Note:** If the system has more than one Dialogic board, all boards must have JP1 set to the same hardware interrupt setting.

If you need to use a different hardware interrupt, follow these steps:

Make sure the new interrupt chosen is not being used by any other hardware in the VP system PC.

Set the proper jumper on JP1 for the interrupt selected:

Position 1 = IRQ 2
Position 2 = IRQ 3
Position 3 = IRQ 4
Position 4 = IRQ 5
Position 5 = IRQ 6
Position 6 = IRQ 7

Edit the configuration file DIALOGIC.CFG to change the statement D41DINTERRUPT = 5 to the new IRQ value. To use a DOS editor to make changes to the file, type `EDIT DIALOGIC.CFG` then press <Enter> from the \VM prompt.

Edit the GOVM.BAT file. To use a DOS editor to make changes to the file, type `EDIT GOVM.BAT` then press <Enter> from the \VM prompt.

Find the line beginning with the word TONEDNLD, and change the '-h5' to the new interrupt (for example, '-h4' for IRQ 4).

Find the line beginning D40DRV –I62 –Y –E, and change the number after the letter 'E' so it reflects the number of ports in the system multiplied by 16. If the system is an 8 port system, for example, the line should read D40DRV –I62 –Y –E128.

Setting the D/41D Hardware Interrupt on Windows-based Systems

The VP system uses hardware interrupt IRQ5 by default. This requires that a shorting jumper be placed in position 4 of JP1.

> **Note:** If the system has more than one Dialogic board, all boards must have JP1 set to the same hardware interrupt setting.

If you need to use a different hardware interrupt, follow these steps:

Make sure the new interrupt chosen is not being used by any other hardware in the VP system PC.

Set the proper jumper on JP1 for the interrupt selected:

Position 1 = IRQ 2
Position 2 = IRQ 3
Position 3 = IRQ 4
Position 4 = IRQ 5
Position 5 = IRQ 7
Position 6 = IRQ 10

Position 7 = IRQ 11

Position 8 = IRQ 12

Setting the D/41D Memory Address

The VP system uses memory addresses D0000, D2000, D4000… by default. Set the memory address of each board using switch SW1. Table 20-1 shows the position of each switch.

Setting Other D/41D Hardware Settings

Jumper JP7 must be in place on the first Dialogic board installed in the system. It must be removed on all other boards in the system.

Jumpers JP5 and JP6 should both be in the open position on all boards.

Configuring the D/41D Software on DOS-based Systems

When you run the System Setup utility, you are prompted to enter the number of lines (ports) being installed in the system. When you enter this number, the VP system automatically configures the Dialogic software. (Always select the actual number of ports being installed, even if the system will not be currently utilizing all of the ports. For example, if you are installing two 4-port Dialogic boards but are currently going to use only six ports, with two ports for future growth, you must still select 8 ports in the Setup utility.)

If you are adding new Dialogic boards to an existing system, you do not need to run the Setup utility again. Simply edit the Dialogic configuration file DIALOGIC.CFG (stored by default in the \VM directory) and add an entry for each new board being installed:

A typical DIALOGIC.CFG file for two 4-port boards is shown below:

```
[Genload - All Boards]
BusType =None
D41DInterrupt=5
D41DAddress=D0000
D41DAddress=D2000
```

To add a board to an existing system, just add one line containing its address. The entry for each board should match the address for that board as shown in Table 20-1.

Configuring the D/41D Software on Windows-based Systems

To use Dialogic software to configure D/41D boards:

From the Windows desktop, double click on the Services icon. From the SERVICES screen that displays, highlight each of the following services, in the order presented, and click on the Stop button after each time you highlight a service:

1. PROXY E-MAIL CLIENT (present only on Windows-based systems running release 10.0 and later)
2. kvt voice mail manager

3. kvt database Manager service
4. kvt ftp server
5. dialogic

Be advised that when you stop the KVT VOICE MAIL MANAGER service, all calls currently being handled by the VP system are immediately terminated. To exit the SERVICES screen, click on the Close button.

From the Windows desktop, select the Start button, then choose Programs / Dialogic System Software / Dialogic Configuration Manager - DCM.

On the DIALOGIC CONFIGURATION MANAGER screen, click on the Action drop down menu, select the Add Device option. Next, under the Family area, highlight the board type D/x1D. Under the Model area, highlight D/41D. Click on the Next button. Finally, enter a board ID (for example, board1) for the board at the prompt and then select the Next button. There is a pause while the board is detected in the system.

On the DIALOGIC CONFIGURATION MANAGER PROPERTIES screen, confirm the configuration information is correct for the board (including the correct interrupt value is specified—IRQ 5 is recommended), then click on the OK button. If you must correct information displayed, select the item you need to correct, re-enter the value, select the Apply button, then click on the OK button.

The DIALOGIC CONFIGURATION MANAGER screen displays. Repeat steps 3-4 for each D/41D board in the system.

When information for each board has been entered, select the Service drop down menu, select Startup Mode, then select the AUTOMATIC option.

On the DIALOGIC CONFIGURATION MANAGER screen, select the File drop down menu, then select the Exit option.

To restart the VP system, restart the PC by clicking on the Start button, selecting Shutdown, verifying Restart is selected, and clicking on the OK button.

20.1.5 INSTALLING A D/41E BOARD

Configuring the D/41E Jumper and Switch Settings

The positions of the jumpers and switches on the D/41E board are shown in Figure 20-4 D/4xE Board20-4.

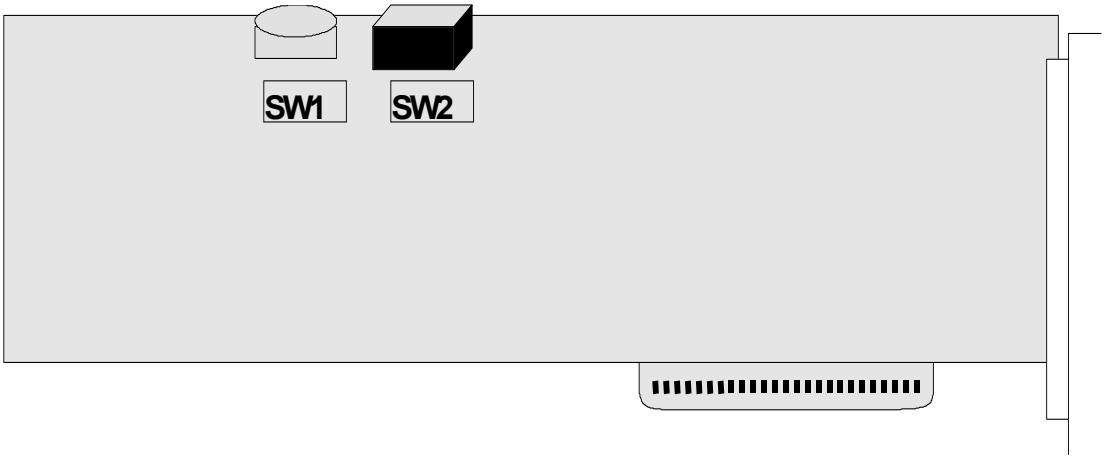


Figure 20-4 D/4xE Board

Setting the D/41E Hardware Interrupt on DOS-based Systems

Modify the DIALOGIC.CFG file, as described below.

Setting the D/41E Hardware Interrupt on Windows-based Systems

The VP system uses hardware interrupt IRQ5 by default. This requires that a shorting jumper be placed in position 4 of JP1.

> **Note:** If the system has more than one Dialogic board, all boards must have JP1 set to the same hardware interrupt setting.

If you need to use a different hardware interrupt, follow these steps:

Make sure the new interrupt chosen is not being used by any other hardware in the VP system PC.

Set the proper jumper on JP1 for the interrupt selected:

Position 1 = IRQ 2
Position 2 = IRQ 3
Position 3 = IRQ 4
Position 4 = IRQ 5
Position 5 = IRQ 7
Position 6 = IRQ 10

Position 7 = IRQ 11

Position 8 = IRQ 12

Setting the D/41E Memory Address on DOS-based Systems

The VP system uses memory addresses D0000, D2000, D4000… by default. To configure these addresses, modify the DIALOGIC.CFG file as described below.

Setting the D/41E Memory Address on Windows-based Systems

The VP system uses memory addresses D0000, D2000, D4000… by default. Set the memory address of each board using switch SW1.

Setting Other D/41E Hardware Settings

For each board, use SW1 to select a board number. Each board must use a different ID number.

On each board, set both SW2 switches to the OFF position.

Configuring the D/41E Software on DOS-based Systems

If you are using D/41E boards, create a DIALOGIC.CFG file that reads as shown below:

[Genload - All Boards]
BusType =None
BLTInterrupt=5
BLTAddress=D0000

Save the file in the \VM directory.

Configuring the D/41E Software on Windows-based Systems

To use Dialogic software to configure D/41E boards:

From the Windows desktop, double click on the Services icon. From the SERVICES screen that displays, highlight each of the following services, in the order presented, and click on the Stop button after each time you highlight a service:

PROXY E-MAIL CLIENT (present only on Windows-based systems running release 10.0 and later)

kvt voice mail manager

kvt database Manager service

kvt ftp server

dialogic

Be advised that when you stop the KVT VOICE MAIL MANAGER service, all calls currently being handled by the VP system are immediately terminated. To exit the SERVICES screen, click on the Close button.

From the Windows desktop, select the Start button, then choose Programs / Dialogic System Software / Dialogic Configuration Manager - DCM.

On the DIALOGIC CONFIGURATION MANAGER screen, click on the Action drop down menu, select the Add Device option. Next, under the Family area, highlight the board type D/x1E. Under the Model area, highlight D/41ESC. Click on the Next button. Finally, enter a board ID (for example, board1) for the board at the prompt and then select the Next button. There is a pause while the board is detected in the system.

On the DIALOGIC CONFIGURATION MANAGER PROPERTIES screen, confirm the configuration information is correct for the board (including the correct interrupt value is specified—IRQ 5 is recommended), then click on the OK button. If you must correct information displayed, select the item you need to correct, re-enter the value, select the Apply button, then click on the OK button.

The DIALOGIC CONFIGURATION MANAGER screen displays. Repeat steps 3-4 for each D/41E board in the system.

On the DIALOGIC CONFIGURATION MANAGER screen, select the File drop down menu, then select the Exit option.When information for each board has been entered, select the Service drop down menu, select Startup Mode, then select the AUTOMATIC option.

To restart the VP system, restart the PC by clicking on the Start button, selecting Shutdown, verifying Restart is selected, and clicking on the OK button.

20.1.6 SPECIAL CONNECTION NOTES FOR TWO-PORT BOARDS (DOS-BASED SYSTEMS)

The Dialogic D/21D and Proline/2V two-port boards differ from most other voice processing boards used with the VP system in that the telephone line jacks are type RJ-11 rather than type RJ-14. Figure 20-5 Line Connections of 4-port & 2-port Dialogic Boards20-5 shows a comparison of the two boards.

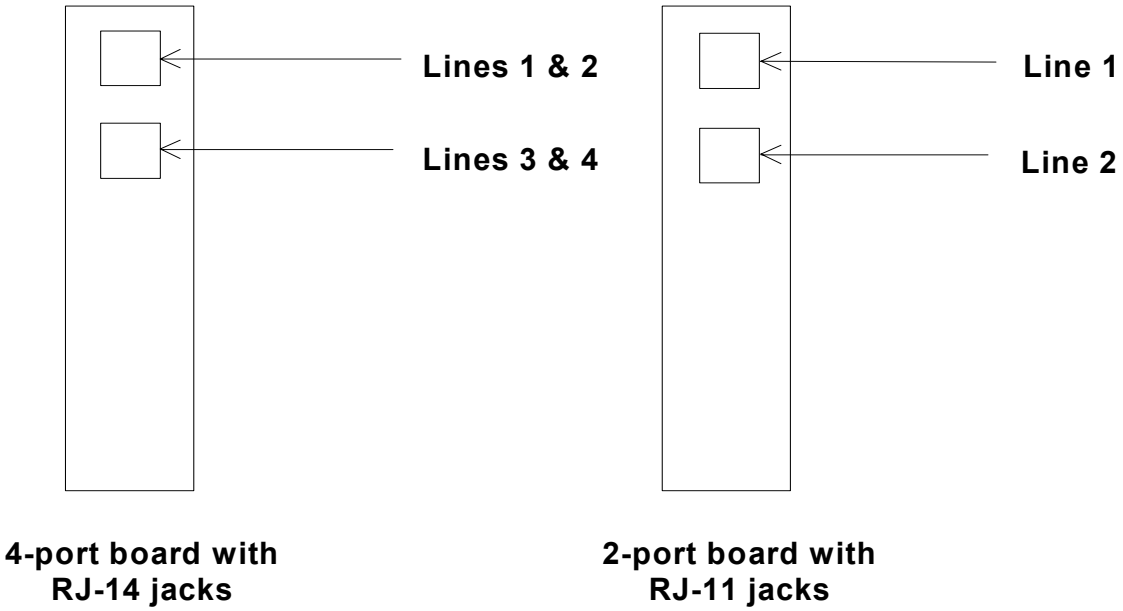


Figure 20-5 Line Connections of 4-port & 2-port Dialogic Boards

20.1.7 INSTALLING A D/41H BOARD (WINDOWS-BASED SYSTEMS)

Configuring the D/41H Jumper and Switch Settings

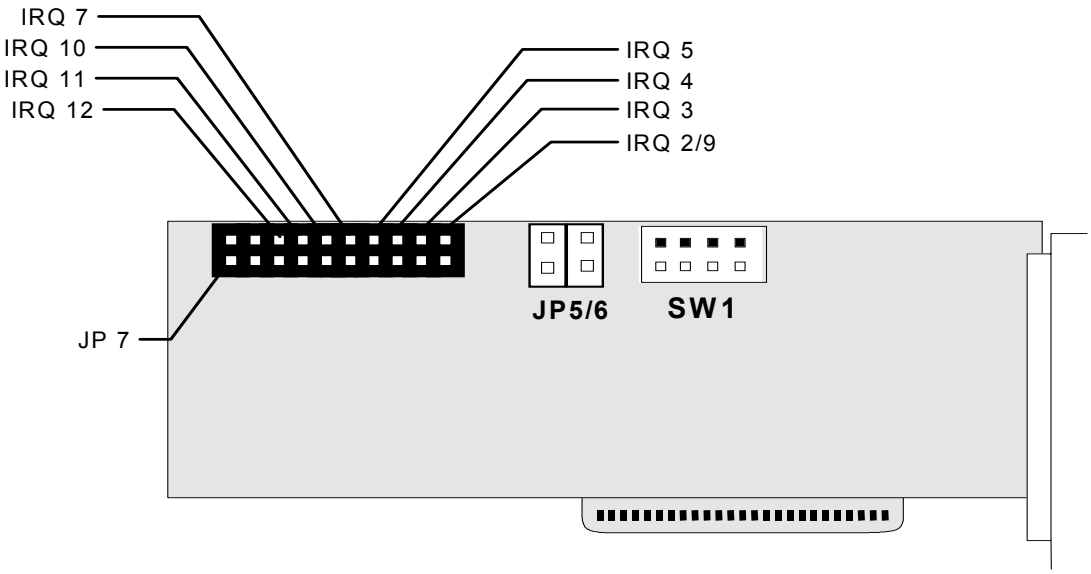


Figure 20-6 D/4xH Board

Setting the D/41H Hardware Interrupt

The VP system uses hardware interrupt IRQ5 by default. This requires that a shorting jumper be placed in position 4 of JP1.

Note:	If the system has more than one Dialogic D/41H board, all boards must have JP1 set to the same hardware interrupt setting.

If you need to use a different hardware interrupt, follow these steps:

Make sure the new interrupt chosen is not being used by any other hardware in the VP system PC.

Set the proper jumper on JP1 for the interrupt selected:

Position 1 = IRQ 2
Position 2 = IRQ 3
Position 3 = IRQ 4
Position 4 = IRQ 5
Position 5 = IRQ 7
Position 6 = IRQ 10

Position 7 = IRQ 11

Position 8 = IRQ 12

Setting the D/41H Memory Address

The VP system uses memory addresses D0000, D2000, D4000… by default. Set the memory address of each board using switch SW1. Table 20-2 shows the position of each switch.

Board Number	SW1 Switch number				Address
	1	2	3	4	
1	off	off	off	off	D0000
2	off	off	on	off	D2000
3	off	on	off	off	D4000
4	off	on	on	off	D6000
5	on	off	off	off	D8000
6	on	off	on	off	DA00
7	on	on	off	off	DC00
8	on	on	on	off	DE00

Table 20-2 D/41H Board Memory Addresses

> **Note:** Address D4000 has not worked successfully during internal board testing. When installing multiple boards, you may need to skip the D4000 address and instead use the D6000 address.

Setting Other D/41H Hardware Settings

Jumper JP7 must be in place on the first Dialogic board (D0000) installed in the system. It must be removed on all other boards in the system.

Jumpers JP5 and JP6 should be in the open position on all boards.

Connecting the D/41H Board Ports to Lines from the Phone System

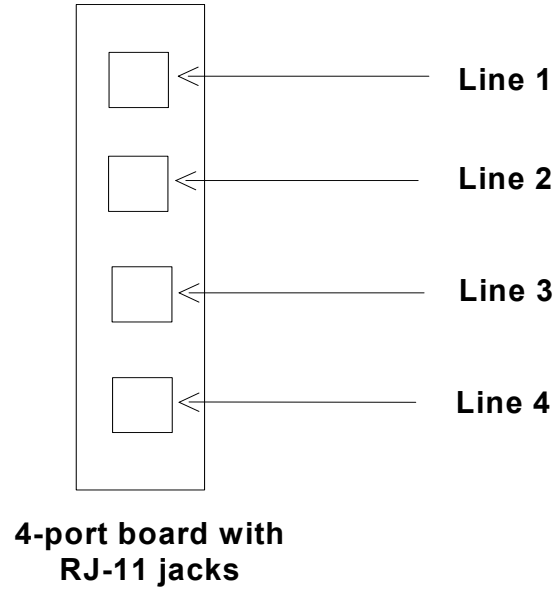


Figure 20-7 Line Connections of 4-port Dialogic D/4xH

Configuring the D/41H Software

To use Dialogic software to configure D/41H boards:

From the Windows desktop, double click on the Services icon. From the SERVICES screen that displays, highlight each of the following services, in the order presented, and click on the Stop button after each time you highlight a service:

PROXY E-MAIL CLIENT (present only on Windows-based VP systems running release 10.0 and later)

kvt voice mail manager

kvt database Manager service

kvt ftp server

dialogic

Be advised that when you stop the KVT VOICE MAIL MANAGER service, all calls currently being handled by the VP system are immediately terminated. To exit the SERVICES screen, click on the Close button.

From the Windows desktop, select the Start button, then choose Programs / Dialogic System Software / Dialogic Configuration Manager - DCM.

On the DIALOGIC CONFIGURATION MANAGER screen, click on the Action drop down menu, select the Add Device option. Next, under the Family area, highlight the board type D/x1H. Under the Model area, highlight D/41H. Click on the Next button. Finally, enter a board ID (for example, board1) for the board at the prompt and then select the Next button. There is a pause while the board is detected in the system.

On the DIALOGIC CONFIGURATION MANAGER PROPERTIES screen, confirm the configuration information is correct for the board (including the correct interrupt value is specified—IRQ 5 is recommended), then click on the OK button. If you must correct information displayed, select the item you need to correct, re-enter the value, select the Apply button, then click on the OK button.

The DIALOGIC CONFIGURATION MANAGER screen displays. Repeat steps 3-4 for each D/41H board in the system.

When information for each board has been entered, select the Service drop down menu, select Startup Mode, then select the AUTOMATIC option.

On the DIALOGIC CONFIGURATION MANAGER screen, select the File drop down menu, then select the Exit option.

To restart the system, restart the PC by clicking on the Start button, selecting Shutdown, verifying Restart is selected, and clicking on the OK button.

20.1.8 INSTALLING A D/4PCI BOARD (WINDOWS 2000-BASED SYSTEMS ONLY)

Configuring the D/4PCI Switch Settings

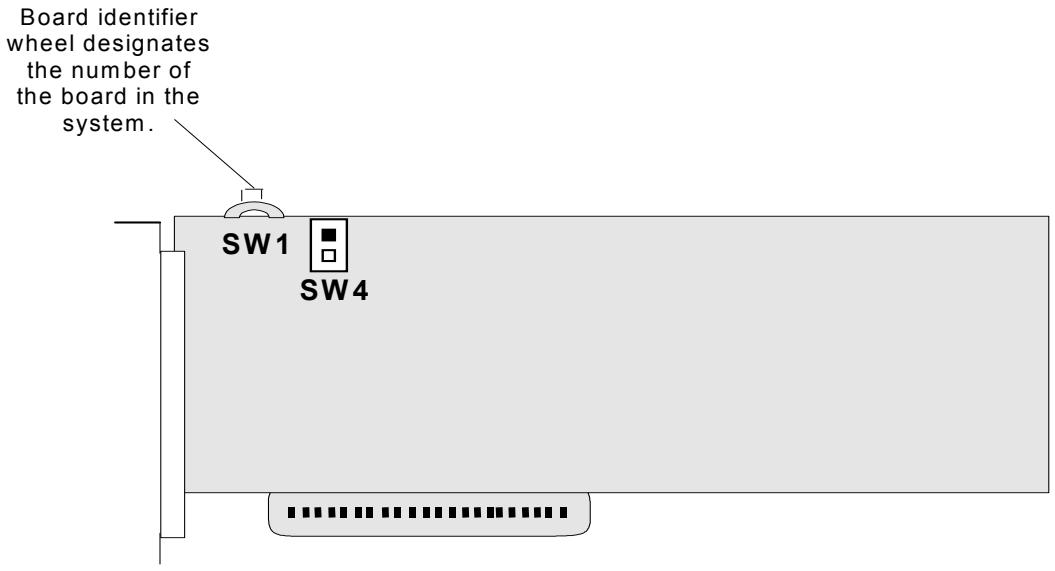


Figure 20-8 D/4PCI Board

Setting D/4PCI Hardware Settings

The D/4PCI board is a Plug and Play board. You must set only 2 hardware settings: SW1 and SW4. SW1 is the board identifier wheel that designates the board number. Turn the wheel until the number appears that indicates the number of the board in the system.

SW4 should remain in the default (OFF) position. (In the ON position, the board will return a busy signal if the port is deactivated.)

Note:	SW1 cannot be set to zero.

Configuring the D/4PCI Software

Follow this procedure to configure D/4PCI boards on the VP system:

From the Windows desktop, double click on the Services icon. From the SERVICES screen that displays, highlight each of the following services, in the order presented, and click on the Stop button after each time you highlight a service:

PROXY E-MAIL CLIENT (present only on Windows-based VP systems running release 10.0 and later)

kvt voice mail manager

kvt database Manager service

kvt ftp server

dialogic

Be advised that when you stop the KVT VOICE MAIL MANAGER service, all calls currently being handled by the VP system are immediately terminated.

> **Note:** When stopping the PROXY E-MAIL CLIENT and the KVT VOICE MAIL MANAGER, you may notice a long delay. This is normal and requires no intervention.

Set the KVT VOICE MAIL MANAGER, DIALOGIC, and GAMMALINK (if applicable) to Manual:

On the SERVICES screen, select Startup, select the MANUAL option, and then press the OK button. To exit the SERVICES screen, click on the Close button.

From the Windows desktop, select the Start button, then choose Programs / Dialogic System Software / Dialogic Configuration Manager - DCM.

On the DIALOGIC CONFIGURATION MANAGER screen, deconfigure any existing boards by highlighting each board and pressing the Delete Device button.

On the DIALOGIC CONFIGURATION MANAGER screen, select the File drop down menu and then select the Exit option.

Shut down the VP system PC by clicking on the Start button, selecting Shutdown, verifying that Shut Down the Computer is selected, and clicking on the OK button.

Insert the D/4PCI board into an available PCI slot in the VP system PC.

> **Note:** PCI boards take precedence over any other boards in the system, and Board 1 carries Port 1 regardless of where the board is physically placed in the PC.

Restart the VP system PC.

The FOUND NEW HARDWARE screen displays, followed by the FOUND NEW HARDWARE WIZARD screen. Select Next on the FOUND NEW HARDWARE WIZARD screen and accept the defaults on each of the following screens. You must follow this procedure for each PCI board in the system.

Note:	On the final screen, the DRIVER FILES SEARCH RESULTS screen, the default option is to disable the device. Accept this default by pressing the Finish button. In the Device Manager, under Other Devices, the D/4PCI board will be listed as Other PCI Bridge Device and will appear as **uninstalled**. Do not change this setting.

Open the DIALOGIC CONFIGURATION MANAGER. The Dialogic Configuration Manager will auto-detect all PCI boards in the system.

Configure any ISA boards in the system as appropriate by following the instructions detailed earlier in this section, and start the Dialogic service for all boards. To start the Dialogic service for each board, highlight the board and from the Services dropdown menu, select the Start Service option.

When you have completed configuring the ISA boards, exit the DIALOGIC CONFIGURATION MANAGER by selecting the File drop down menu and then the Exit option.

Open the SERVICES screen and re-set the KVT VOICE MAIL MANAGER and the DIALOGIC and GAMMALINK (if applicable) services to start automatically. To do this, select the Service drop down menu, select Startup Mode, and then select the AUTOMATIC option. Then start the KVT VOICE MAIL MANAGER and the DIALOGIC services.

20.1.9 INSTALLING A D160SC-LS BOARD (WINDOWS-BASED SYSTEMS)

Setting the D160SC-LS Board ID

Assign a unique board ID to each D160SC-LS board in the system by rotating the board ID indicator on each board to an appropriate number.

Setting the D160SC-LS Hardware Interrupt and Memory Address

When you configure D160SC-LS boards using the Dialogic board configuration software, an available hardware interrupt and memory address is automatically assigned to each board. You do not need to manually enter this information or adjust physical board settings prior to running the Dialogic configuration software.

Configuring the D160SC-LS Software

To use Dialogic software to configure D160SC-LS boards:

From the Windows desktop, double click on the Services icon. From the SERVICES screen that displays, highlight each of the following services, in the order presented, and click on the Stop button after each time you highlight a service:

PROXY E-MAIL CLIENT (present only on Windows-based systems running release 10.0 and later)

kvt voice mail manager

kvt database server

kvt ftp server

dialogic

Be advised that when you stop the KVT VOICE MAIL MANAGER service, all calls currently being handled by the system are immediately terminated. To exit the SERVICES screen, click on the Close button.

From the Windows desktop, select the Start button, then choose Programs / Dialogic System Software / Dialogic Configuration Manager - DCM.

When the system has one or more Dialogic D160SC-LS 16-port boards, the Dialogic Configuration Manager program detects each of these boards and assigns each an available IRQ and memory address. In most instances, IRQ 5 and address D800 is assigned. If the system also includes one or more Dialogic D/41H 4-port board, however, it is recommended you use IRQ 5 for the D/41H board(s). Under these circumstances you should modify the IRQ setting assigned to the 16-port board(s) to IRQ 9. You can modify this IRQ and, if necessary, the memory address assigned (D800 should be fine in most installations) on the DIALOGIC CONFIGURATION MANAGER PROPERTIES screen. Select the item you need to correct, enter a new value, and select the Apply button. When you are satisfied with the board settings, click on the OK button.

The DIALOGIC CONFIGURATION MANAGER screen displays. If necessary, manually enter information on additional boards that were not automatically detected. Refer to steps 3-4 of the procedure provided under the heading, “Configuring the D/41H Software.”

When information for each board has been entered, select the Service drop down menu, select STARTUP MODE, then select the AUTOMATIC option.

On the DIALOGIC CONFIGURATION MANAGER screen, select the File drop down menu, then select the EXIT option.

To restart the system, click on the Start button, selecting Shutdown, verifying Restart is selected, and clicking on the OK button.

20.2 Using Rhetorex Boards on DOS-based Systems

The Rhetorex boards are packed in static-proof bags. Make sure you are grounded when you remove the boards from the bags. You can ground yourself by touching the frame of the computer.

All Rhetorex boards must be configured via hardware and software. You configure the hardware by installing or removing shorting jumpers on the boards. You configure the software using a Rhetorex program called CONFIGUR.

20.2.1 RHETOREX BOARD INSTALLATION CONSIDERATIONS

Each Rhetorex board installed in the system must be assigned an address in memory using the CONFIGUR program explained later in this section. Board 1 (as determined by the jumper settings) will be assigned memory address 1 in the CONFIGUR program.

The system ports begin with port 1 on board 1, but the alignment of additional ports depends on the system configuration and the types of Rhetorex boards used. For example, consider a 6 port system using one 2132 board and one 4132 board. If you address the 2132 board as board 1 and the 4132 board as board 2, then the system ports (lines) 1 and 2 reside on the 2132 board and ports 3-6 reside on the 4132 board.

If you reverse the above example and install the 4132 board as board 1 and the 2132 board as board 2, the system ports 1-4 reside on the 4132 board and ports 5 and 6 reside on the 2132 board.

Configuring Rhetorex Board Jumper Settings

Rhetorex boards require jumpers to be set according to the board number as explained above. The settings are shown in illustrations below.

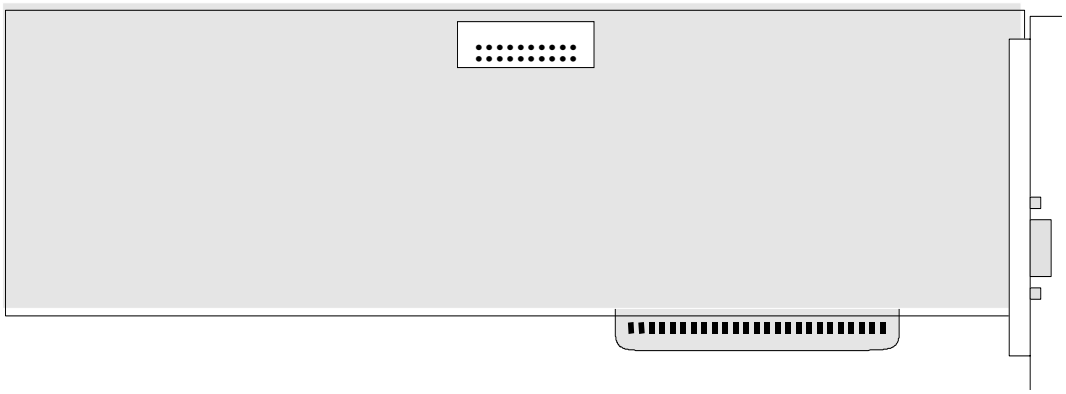


Figure 20-6 Rhetorex 2132 and 4132 Boards

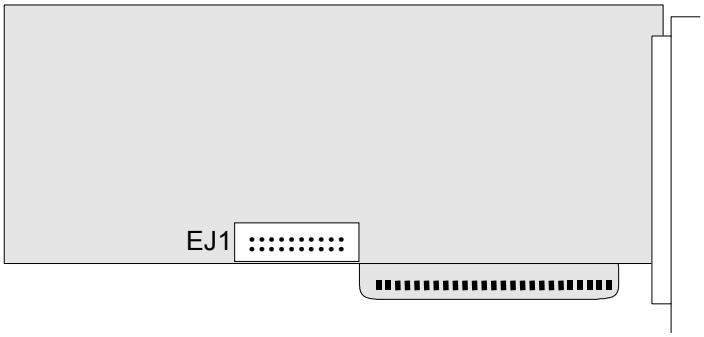


Figure 20-7 Rhetorex 232 and 432 Boards

The Rhetorex 232, 2132, 432, and 4132 boards are configured with a 10-pin jumper array with removable shorting jumper plugs. Install or remove the appropriate jumpers according to the information provided below.

Rhetorex 208 and 408 boards can only be configured as board 1 or board 2, therefore a maximum of two of these types of boards may be installed in a system. Configure the boards as follows:

Board 1 - Jumper EJ1 installed

Board 2 - Jumper EJ1 removed

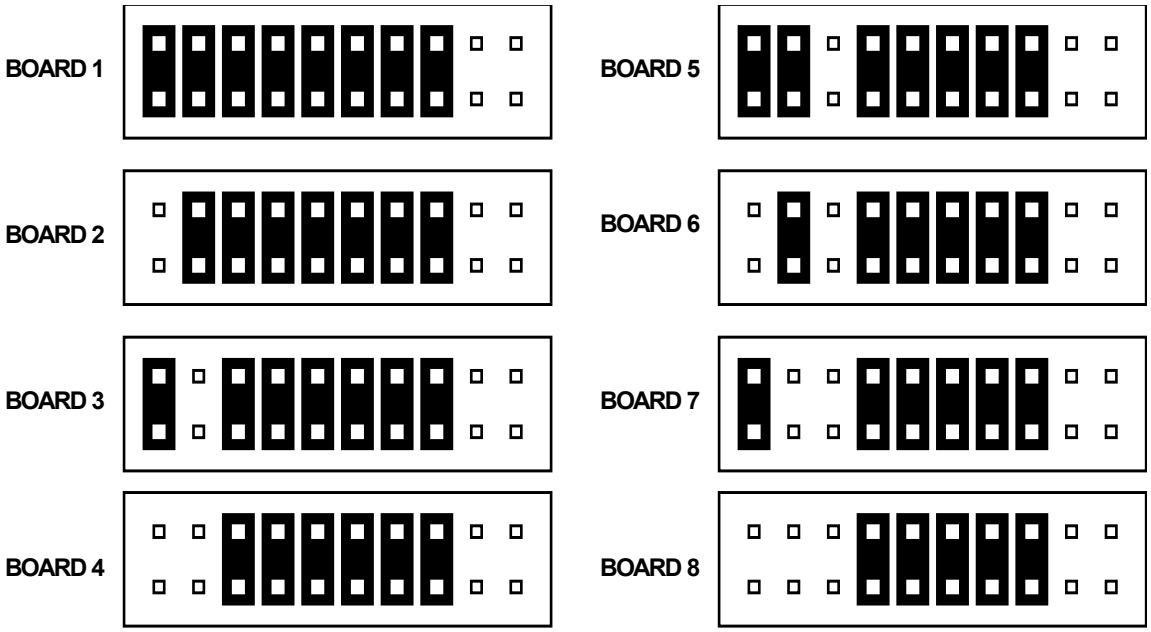


Figure 20-8 Jumper Settings for Rhetorex 208 and 408 Boards

Note:	Rhetorex 208 and 408 boards are no longer in production and are shown here for reference with existing systems. These boards have been replaced with 208B and 408B boards, which are discussed below.

20.2.2 CONFIGURING RHETOREX RDSP 208B (DUET) AND 408B (QUARTET) BOARDS

The Rhetorex 208B and 408B boards are not configurable and are limited to one board per system. This board must be set up as board 1. To add additional ports to a system using either a 208B or a 408B board, you must use one of the previously discussed model boards configured as board 2, 3, 4 etc.

If an existing system contains a single 208 or 408 board, you can expand the system by one board (2 or 4 ports) using a 208B or 408B board. Since the newly installed 208B or 408B board is fixed as board 1, you must re-configure the existing 208 or 408 board as board 2 by removing jumper EJ1 (Figure 20-7 Rhetorex 232 and 432 Boards).

20.2.3 INSTALLING RHETOREX BOARDS IN THE COMPUTER

Rhetorex boards fit into any 8-bit or 16-bit slot. 2132 and 4132 boards require full-length slots, and 208 and 408 boards require half-length slots. Choose an empty slot, and remove the screw holding the blank bracket in place. Remove the blank bracket, and save it. Position the board with the bracket towards the rear of the computer. If you are installing a full-length board, make sure the other end of the board is positioned in the plastic guide. Slide the board down until the gold-fingered connector makes contact with the slot. Verify that the connector and slot are aligned, then firmly push the board into the slot. Screw the end bracket of the board down firmly, using the screw that held the blanking plate.

If you are installing more than one Rhetorex board, repeat these instructions for each board.

Making Telephone Line Connections to the Rhetorex Board

The telephone jacks on the Rhetorex boards are type RJ-14 (each connector has two lines). If you are installing four port boards, connect lines 1 and 2 to the upper RJ-14 socket at the rear of the Rhetorex board. Connect lines 3 and 4 to the lower RJ-14 socket.

Programming Memory Addresses on the Rhetorex Board

When you run the System Setup utility, you are prompted to enter the number of lines (ports) being installed in the system. If you entered this number correctly and are using the most logical configuration, the system automatically configures the Rhetorex software. (Always select the actual number of ports being installed, even if the system will not be currently utilizing all of the ports. For example, if you are installing two 4-port Rhetorex boards but are currently going to use only six ports, with two ports for future growth, you must still select 8 ports in the Setup utility.)

To confirm all memory address information is programmed correctly, use the Rhetorex CONFIGUR program. From the \VM prompt, type `CONFIGUR` then press <Enter>. The Main menu screen of the program displays, as shown in Figure 20-9 CONFIGURE Program.

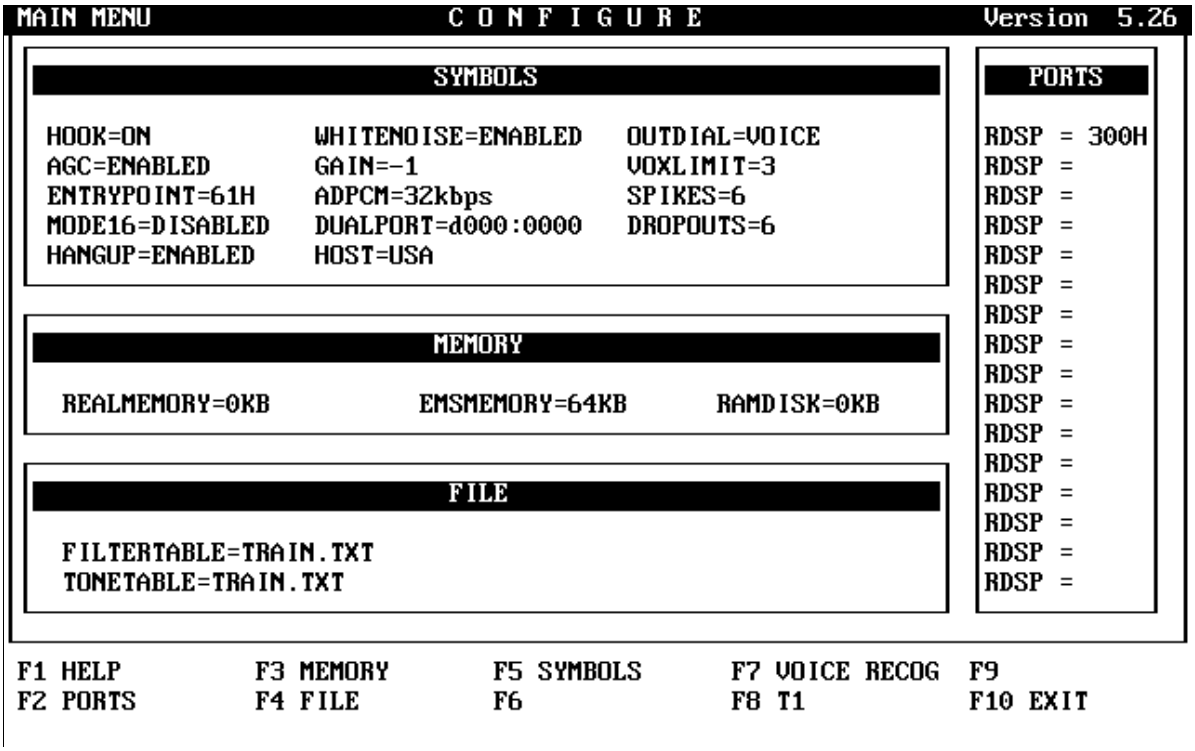


Figure 20-9 CONFIGURE Program

Setting up the Rhetorex Board PORTS

Note that the term *ports*, as used on this screen, refers to DOS address ports, *not* the analog telephone line ports that connect the Rhetorex boards to the telephone system.

By default one Rhetorex board is configured with address 300H. For each additional board installed, addresses must be added in order down the column. These addresses are the same whether the board is a 2-port board or a 4-port board. The following table shows the addresses for the first 8 boards:

BOARD #	1	2	3	4	5	6	7	8
RDSP =	300H	301H	302H	303H	304H	305H	306H	307H

Setting Up the Rhetorex Board Memory

Memory space must be assigned for the number of Rhetorex voice board ports installed. Here, the term *ports* refers to telephone line connections. For example, if you are installing a total of two 4132 boards, you must configure memory for 8 ports.

Each port requires 16K of EMS memory (64KB for each 4-port board and 32KB for each 2-port board). Enter the total memory needed for the system in the field EMSMEMORY. The REALMEMORY and RAMDISK fields should both be 0KB.

The FILE area of the screen is used in conjunction with the Rhetorex program ACCUCALL (see section 13).

When you have completed the data entry on the screen, exit the CONFIGUR program by pressing <F10>.

> **Note**: Whenever you have entered or modified data in the Rhetorex CONFIGUR program, you must re-boot the computer for the changes to take effect.

20.3 Using Rhetorex Boards on Windows-based Systems

As of software release 10.4, the only Rhetorex boards supported on Window-based systems are the 232, 432, and IVPC boards.

20.3.1 RHETOREX BOARD INSTALLATION CONSIDERATIONS

The Rhetorex boards are packed in static-proof bags. Make sure you are grounded when you remove the boards from the bags. You can ground yourself by touching the frame of the computer.

All Rhetorex boards must be configured via hardware and software. You configure the hardware by installing or removing shorting jumpers on the boards. You configure the software using a Rhetorex program called Brooktrout Technology Configuration Wizard.

Each Rhetorex board installed in the system must be assigned an address in memory using the Configuration Wizard program detailed later in this section. The system ports begin with port 1 on board 0.

Configuring Rhetorex Board Jumper Settings

Rhetorex boards require jumpers to be set according to the board number as explained above. The settings are shown in illustrations below.

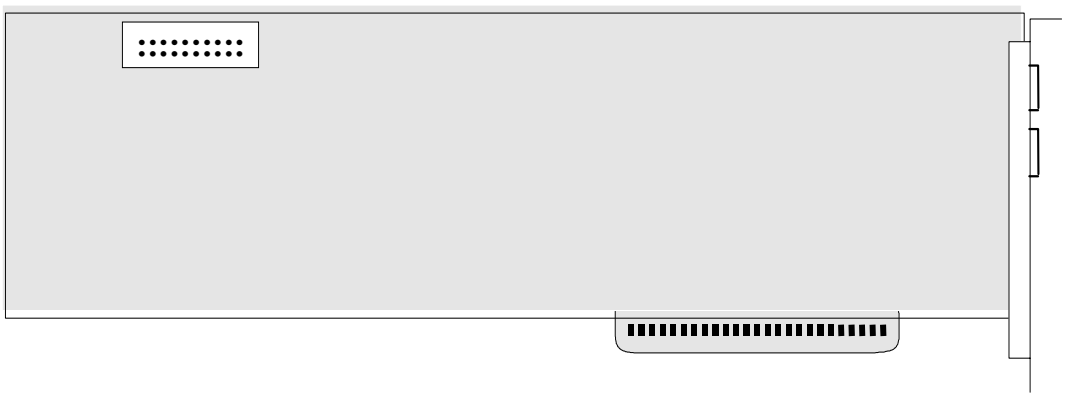


Figure 20-10 Rhetorex IVPC Board

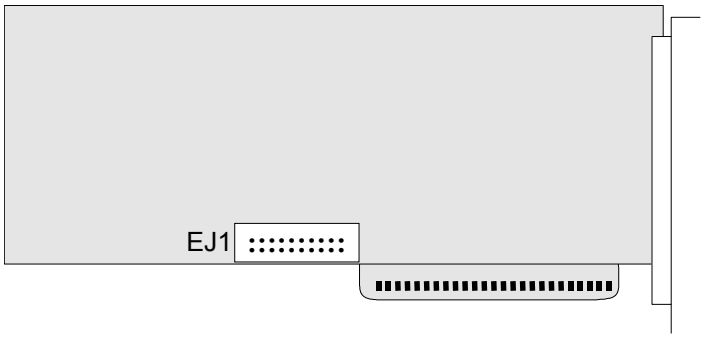


Figure 20-11 Rhetorex 232 and 432 Boards

The Rhetorex 232, 432 and IVPC boards are configured with a 10-pin jumper array with removable shorting jumper plugs. Install or remove the appropriate jumpers according to the diagram provided below.

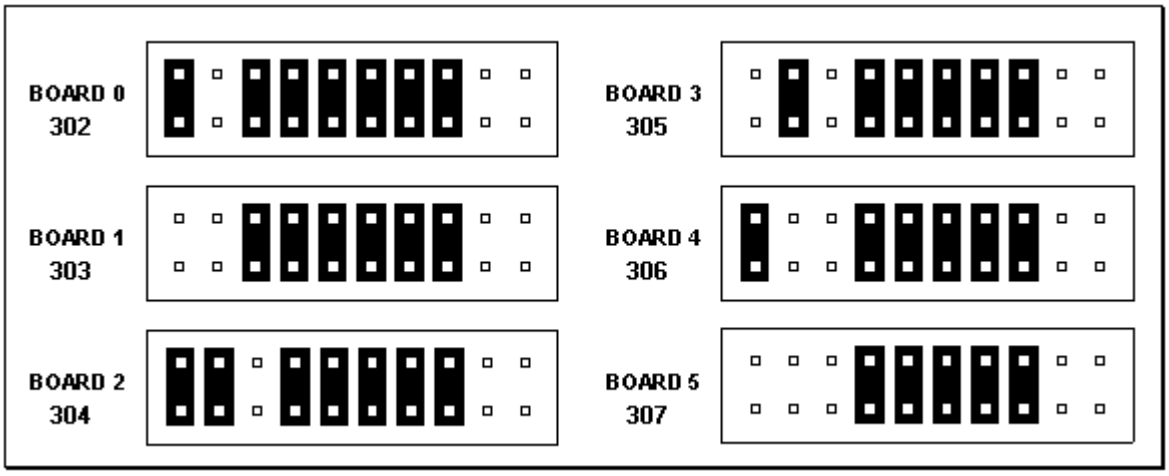


Figure 20-12 Jumper Settings for Rhetorex 232, 432, and IVPC Boards

Note:	To see a diagram of the board and pin settings, go to the ADD A BOARD screen of the Brooktrout Technology Configuration Wizard and select Show Jump.

20.3.2 INSTALLING RHETOREX BOARDS IN THE COMPUTER

Rhetorex boards fit into any 8-bit or 16-bit (ISA) slot. Choose an empty slot and remove the screw holding the blank bracket in place. Remove the blank bracket, and save it. Position the board with the bracket towards the rear of the computer. If you are installing a full-length board, make sure the other end of the board is positioned in the plastic guide. Slide the board down until the gold-fingered connector makes contact with the slot. Verify that the connector and slot are aligned, then firmly push the board into the slot. Screw the end bracket of the board down firmly, using the screw that held the blanking plate.

If you are installing more than one Rhetorex board, repeat these instructions for each board.

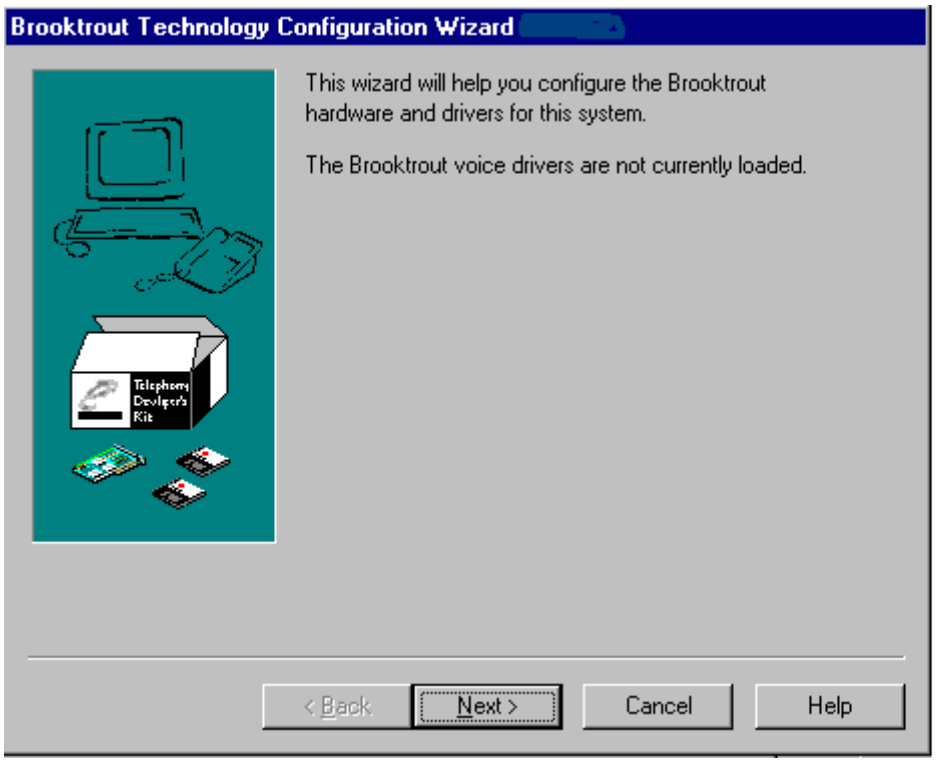
Making Telephone Line Connections to the Rhetorex Board

The telephone jacks on the Rhetorex boards are type RJ-14 (each connector has two lines). If you are installing four port boards, connect lines 1 and 2 to the upper RJ-14 socket at the rear of the Rhetorex board. Connect lines 3 and 4 to the lower RJ-14 socket.

Programming Memory Addresses on the Rhetorex Board

Follow these steps to program the memory addresses on each Rhetorex board in the system:

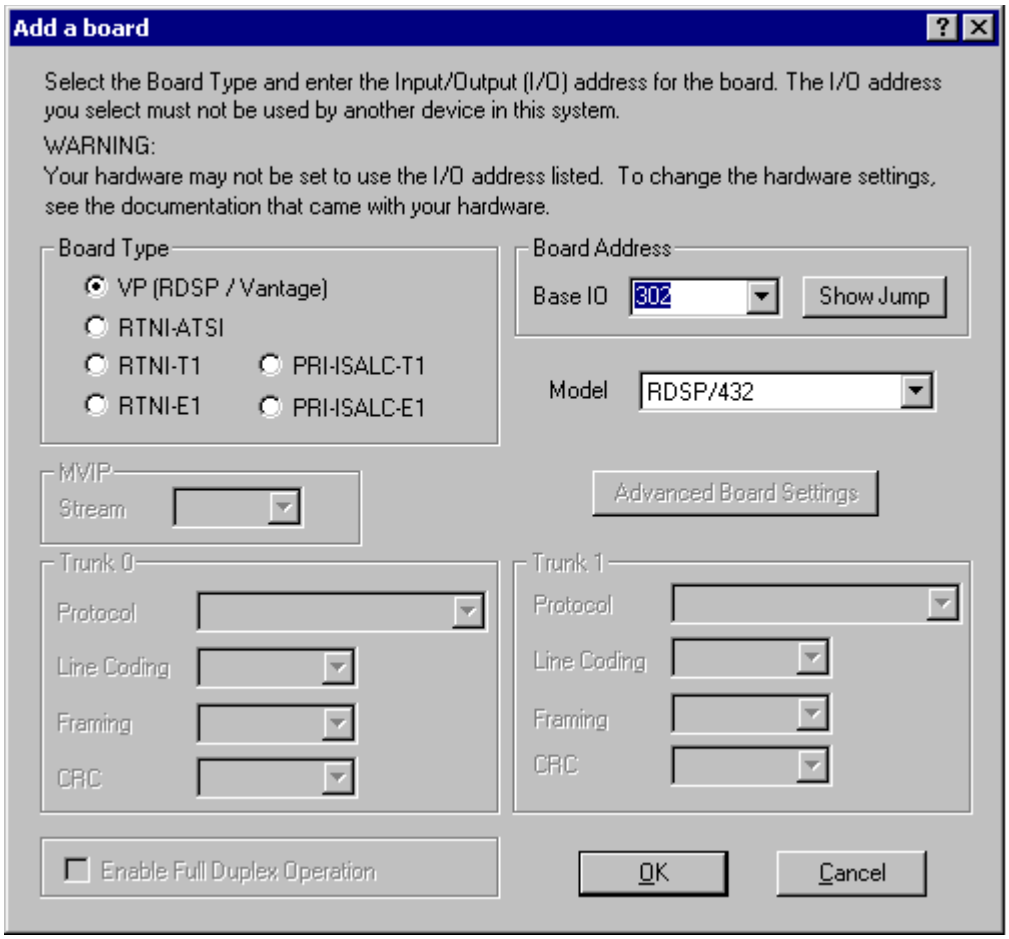
From the Start button, select Programs / Voice Processing System / Brooktrout / Configuration Wizard.


Brooktrout Technology Configuration Wizard
This wizard will help you configure the Brooktrout hardware and drivers for this system.
The Brooktrout voice drivers are not currently loaded.
Telephony Developer's Kit
< Back
Next >
Cancel
Help

On the BOARD INFORMATION screen, select Add. The ADD A BOARD screen displays.

Brooktrout Technology Configuration Wizard - Board Information
Select the type and I/O address of each installed Brooktrout board.
To add a new board, click Add.
To edit the I/O address of a listed board, highlight the board and click Edit.
To remove a board from the list, highlight it and click Remove.
PCI cards will be added to this list automatically and cannot be removed.
Model
Board
Address
RDSP/432
0
302
RDSP/IVPC
1
303
Add
Edit
Remove
< Back
Next >
Cancel
Help

On the ADD A BOARD screen, confirm that the selected Board Type is VP (RDSP / Vantage).



In the Base IO field in the Board Address area, select 302 as the address of the first board. Each additional board should be addressed sequentially.

In the Model field, select the appropriate board model:

RDSP / 232

RDSP / 432

RDSP / IVPC

Repeat steps 2 – 5 for each additional board. When you have finished adding boards, select the Next button.

On the SHARED MEMORY ADDRESS screen, leave the default entry (D000) and click on the Next button to continue.

On the ADVANCED OPTIONS screen, leave the default entries and click on the Next button to continue.

On the SAVE DRIVER SETTINGS screen, select Yes. Click on the Next button to continue.

The drivers will start. On the final CONFIGURATION WIZARD screen, select Finish or select the Accucall button to run the Accucall utility. For more information on running Accucall on Windows-based systems, see section 13.

Note:	Accucall does not support Rhetorex IVPC boards.

Setting up the Rhetorex Board PORTS

By default, Rhetorex boards will be configured with address 300. However, in Windows-based systems, the first board (board 0) must be configured with address 302. For each additional board installed, addresses must be added sequentially. These addresses are the same whether the board is a 2-port board or a 4-port board. The following table shows the addresses for the first 8 boards:

BOARD #	0	1	2	3	4	5	6	7
BASE IO ADDRESS =	302	303	304	305	306	307	308	309

21. INSTALLING KIT SYSTEMS

Most VP system voice mail systems are sold as *turnkey* systems and are shipped with VP system software and voice boards pre-installed. If you are working with a VP system *kit*, however, you must manually install the voice board hardware and the VP system software. Section 20 provides information on installing voice boards. This section identifies the minimum hardware and software requirements of the VP system and details the procedure for installing VP system software.

21.1 DOS-based System Requirements

The minimum configuration required to install and operate a DOS-based system is outlined below:

- IBM PC-AT, 386 (or compatible), with at least 4 MB of memory (RAM). The PC should contain a conventional motherboard and separate video and multi I/O cards. Unitary motherboards in which the video and multi I/O functions are integrated are *not* recommended due to possible conflicts with the voice processing board(s).
- Computer hard drive with at least 20 MB of free space. After DOS loads, this provides approximately 1 hour of message and greeting recording time. Add 15 MB for each additional hour of recording time required.
- DOS version 5.0 or above (loaded high).
- Diskette drive.
- Parallel port.
- At least one voice processing board.
- Expanded-memory manager (such as EMM386, which is part of the DOS package).
- Hard disk drive maintenance utility, such as Microsoft DEFRAG (included with DOS 6.0 and above) or Norton Utilities (for use with DOS 5.0). Norton Utilities is a product of the Symantec Corporation.

21.2 Configuring the PC for the DOS-based Voice Mail

This section discusses basic configuration considerations you should keep in mind when setting up the system. Note that some PCs do not include all options and settings discussed here.

In the computer BIOS settings, verify the following settings:

Under Advanced CMOS Setup, all ROM Shadow Memory is DISABLED.

Depending on the PC options, WAIT FOR F1 IF ANY ERROR is DISABLED or the option IGNORE KEYBOARD ERRORS is ENABLED.

Under Advanced Chip Setup, the setting for A/T Clock Select is no greater than CPUCLK/5. Note that not all PC boards provide this option.

All Power Management options are DISABLED.

> **Note:** When allocating computer resources in the CONFIG.SYS file (for example, video boards, I/O ports, modems, etc.), do not use the DØØØ and D8ØØ memory blocks. This area of memory must be available for use by the VP system and the voice processing boards.

21.3 Windows-based VP system Requirements

The minimum configuration required to install and operate a Windows-based VP system is outlined below:

- IBM Pentium PC / 233 MHz (or compatible), with at least 96MB of memory (RAM).
- Computer hard drive with at least 4GB of free space
- Computer memory at the level recommended by the operating system manufacturer
- NT version 4.0 or above with Service Release 5.0 or Windows 2000 Professional Edition with Service Release 1.0
- CD-ROM drive
- Parallel port
- At least one voice processing board
- Hard disk drive maintenance utility recommended for Windows NT, not necessary for Windows 2000 (Windows 2000 contains its own disk maintenance utility.)
- Tape backup drive (strongly recommended)
- Sound card and microphone (necessary for re-recording system prompts)

21.4 Configuring the PC for the Windows-based VP system

This section discusses basic configuration considerations you should keep in mind when setting up the system. Note that some PCs do not include all options and settings discussed here.

In the computer BIOS settings, verify the following settings:

- Under Advanced CMOS Setup, all ROM Shadow Memory is DISABLED.
- Depending on the PC options, WAIT FOR F1 IF ANY ERROR is DISABLED or the option IGNORE KEYBOARD ERRORS is ENABLED or the option HALT ON: ALL, BUT KEYBOARD is selected.
- All Power Management options are DISABLED.

> **Note:** When allocating computer resources in the CONFIG.SYS file (for example, video boards, I/O ports, modems, etc.), do not use the DØØØ and D8ØØ memory blocks. This area of memory must be available for use by the VP system and the voice processing boards.
>
> **Note:** Set IRQs 3, 4, 5, and 7 to LEGACY ISA.

21.5 Installing the Voice Processing Board

See section 20 for information on how to install the various voice processing boards supported by the VP system.

21.6 Installing the Key

The VP system software itself is not copy-protected. Backup copies can be made of DOS-based VP system master diskettes using the normal DOS COPY, XCOPY, or DISKCOPY commands. However, systems run only if the *Authorization key* (shown in Figure 21-1 Authorization key) is attached to one of the PC's parallel (printer) ports. If an Authorization key is not attached to the PC, the VP system operates in the *single-line demonstration* mode. In this mode, the VP system answers calls only on line 1 and processes only 20 calls before it must be manually re-started.

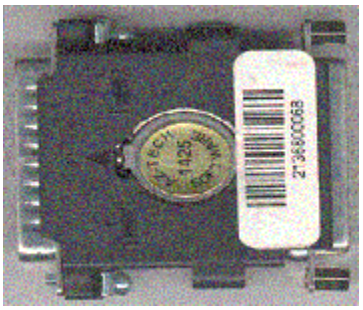


Figure 21-1 Authorization key

Note:	If you are using a locally attached printer to output log file reports, etc., you can connect the printer to the female end of the software key. If attached to the key, the printer *must* be powered on and in the on-line state at all times. If it is not, the VP system does not operate. For this reason, it is recommended you attach a printer to the VP system on an alternate printer port or print using a network printer. The key can be connected to any active LPT port.

21.7 Installing DOS-based VP system Software

21.7.1 SELECTING THE APPROPRIATE INSTALLATION DISKETTES

The VP system software is written to support various manufacturers and models of voice processing boards. Each diskette of the DOS-based VP system software is labeled for a specific voice board. Make certain you install the software designed for the voice board hardware used in the installation.

21.7.2 RUNNING THE DOS-BASED VP SYSTEM INSTALLATION PROGRAM

The DOS-based VP system Install program copies all the VP system files from the Installation diskettes into the directory \VM on the PC's hard drive.

The instructions provided below detail the steps for running the Install program. These steps assume that the diskette drive on the VP system PC is drive A and the hard drive on the VP system is drive C. If you are using drives with different drive letter designations, substitute the appropriate drive letters in the following steps:

To install DOS-based VP software on the PC:

Make the hard drive the current drive by typing C: then pressing <Enter>.

Switch to the root directory, by typing CD\ then pressing <Enter>.

Put the VP system Disk 1 in drive A.

Type A:INSTALL then press <Enter>.

When the main Install menu appears, use the ↓ key to highlight INSTALL NEW SYSTEM then press <Enter>.

When prompted to enter the disk/directory, select the default (C:\VM) by pressing <Enter>. The program prompts you to confirm your selections. Enter Y. The program begins copying files on the diskette to the PC hard drive.

Note:	Though you may indicate an alternative file installation location, you are strongly urged to use the default file storage structure suggested. Doing so greatly facilitates system maintenance efforts by VP system technicians and VP system Technical Support. It also facilitates system setup since instructions provided in this manual assume that files are stored using the default file locations.

When prompted, insert the requested diskette then press <Enter>.

At the prompt to replace the AUTOEXEC.BAT and CONFIG.SYS files, type Y. The existing files are renamed as AUTOEXEC._VM and CONFIG._VM and saved.

At the prompt for the DOS boot drive, press <Enter> to select the default drive C then press <Enter>.

When the Install program displays the Install Main menu, press the ↓ key to highlight EXIT, then press <Enter>. (You perform First Time Setup (also referred to as PBX setup) using instructions in section 3.)

Press Y to exit program.

Remove the diskette from the diskette drive then press <Enter>. The PC re-boots, and the VP system starts automatically.

21.7.3 INSTALLING OPTIONAL MODULES ON A DOS-BASED VP SYSTEM

If the VP system kit purchase included optional program modules, install and activate the modules using the instructions provided in section 23.

21.8 Using Disk Maintenance Utilities on DOS-based Systems

As the VP system performs call processing tasks, it continually creates and deletes files, mostly message files. This causes hard drive defragmentation. For the VP system to function properly, the VP system PC hard drive must be defragmented regularly. To set up scheduled disk de-fragmentation, use the information provided below.

21.8.1 DEFRAGMENTING SYSTEMS USING DOS 6.0 AND ABOVE

On the GENERAL INFORMATION screen, enter a system maintenance time (in 24-hour format) in the field AUTOMATICALLY EXIT TO DOS AT. See section 4.4 for details on making this entry.

Note:	When you specify a maintenance time, the VP system can perform an exit to DOS one time immediately after leaving the programming mode. This is normal. After this immediate exit, the VP system exits to DOS only at the time programmed.

By default, the VP system exits to DOS at the time you specify each day Thursday through Tuesday, then immediately re-starts the VP system and performs a system audit. This takes approximately 2-3 minutes. On each Wednesday, the Microsoft DEFRAG program runs at the time you specify, then the VP system re-starts. DEFRAG can take from 10-40 minutes to run, depending on the amount of message traffic that was processed by the voice mail system.

21.8.2 DEFRAGMENTING SYSTEMS USING DOS 5 AND NORTON UTILITIES

By default, the VP system is configured to automatically run the Norton Utilities SPEEDISK program when the PC system is running any version of DOS 5.

Install Norton Utilities in the directory C:\NU. If Norton Utilities is installed on the PC in another directory, edit the file NDD.BAT in the C:\VM directory, changing the command line CD\NU so NU is replaced with the directory name where Norton Utilities is located.

On the GENERAL INFORMATION screen, enter a system maintenance time (in 24-hour format) in the field AUTOMATICALLY EXIT TO DOS AT. See section 4.4 for details on making this entry.

Note:	When you specify a maintenance time, the VP system may perform an exit to DOS one time immediately after leaving the programming mode. This is normal. After this immediate exit, the VP system exits to DOS only at the time programmed.

By default, the VP system exits to DOS at the time you specify each day Thursday through Tuesday, then immediately re-starts the VP system and performs a system audit. This takes approximately 2-3 minutes. On each Wednesday, the Norton Speedisk program runs at the time you specify, then the VP system re-starts. SPEEDISK can take from 10-40 minutes to run, depending on the amount of message traffic that was processed by the voice mail system.

21.8.3 DEFRAGMENTING SYSTEMS USING DOS 5 AND OTHER DISK MAINTENANCE UTILITIES

You can use other utility programs to perform disk maintenance by modifying the file NDD.BAT so it runs the appropriate maintenance utilities at the maintenance time you specify. Example setup steps are provided below. This example shows the modifications you make to set up the system to use the Compress program provided in PC Tools (manufactured by Central Point Software, Inc.).

1. Load the PC Tools software onto the computer using the manufacturer's instructions. The program installs in the directory PCTOOLS.

Edit the NDD.BAT file in the C:\VM directory as follows:

2. Replace the line `CD\NU` with `CD\PCTOOLS`
3. Replace the line speedisk `C: /F/Q/V` with `C: /CC`

21.8.4 MODIFYING THE AUTOMATIC MAINTENANCE SCHEDULE ON DOS-BASED SYSTEMS

The file DISKM.BAT (stored by default in the \VM directory) controls the execution of maintenance commands and programs on DOS-based systems. By editing this file, you can specify which system maintenance tasks (including any additional programs you load on the system) are to run on which days of the week. The following example identifies how you would modify the DISKM.BAT file so every Friday the system creates a back up of the VP system database files to another directory called C:\BACK:

Open the DISKM.BAT file using a text editor. Using the DOS editor for example, type `EDIT DISKM.BAT` at the C:\VM prompt then press <Enter>.

Immediately following the line ECHO "TODAY IS FRIDAY" add the line:

COPY *.DVM C:\BACK

Note:	Do not make any other modifications to this file. Doing so may impair the ability of the VP system to function effectively.

Save the DISKM.BAT file, and exit the editor.

21.9 Installing Windows-based VP system Software Components

21.9.1 INSTALLING THE WINDOWS-BASED VP SYSTEM SOFTWARE

Section 22 details the procedures for installing and setting up version 10.x VP system software on systems that are using unified messaging and e-mail reader features. Carefully follow the instructions in section 22.2 to implement kit systems using version 10.x VP system software with unified messaging and e-mail reader features.

If you are installing a new version 10.x Windows-based VP system without unified messaging and e-mail reader features, follow the instructions provided below.

Materials Required for Installation

- To perform the installation you must have the materials listed below.
- VP system Installation CD-ROM
- NTRenew code (if needed, will be listed on the system invoice)

Performing the Installation

To install version 10.x (without unified messaging or e-mail reader features) on the VP system PC, you complete the following general procedures:

- Install the VP system software and running the PBX Setup utility
- Enter system and box and setup information
- Run the Updatedbreport utility

Because VP system engineers strive continually to improve the efficiency and ease of installations, installation instructions change frequently. For the most up-to-date installation instructions for unified messaging and e-mail reader features, please refer to the Installation Notes provided in the inside front cover pocket of this manual. The Installation Notes are step-by-step instructions for installing your VP system. If Installation Notes are not located in the front cover pocket of this manual, contact technical support.

21.9.2 INSTALLING OPTIONAL MODULES ON A WINDOWS-BASED SYSTEMS

If the Windows-based VP system kit purchase included optional program modules, you activated the modules in the previous procedure when you entered the NTRenew authorization code provided on the system invoice. If you need to activate additional optional modules at a later time, see section 23 for instructions.

21.10 Using Disk Maintenance Utilities on Windows-based Systems

As the VP system performs call processing tasks, it continually creates and deletes files, mostly message files. This causes hard drive defragmentation. For the VP system to function properly, the VP system PC hard drive should be defragmented regularly.

NT-based systems purchased as turnkey systems include Executive Software's Diskeeper, a disk maintenance utility you can use to regularly defragment the hard drive on the NT-based VP system PC. (If you purchase a kit NT-based VP system, you must purchase the Diskeeper package separately and install it either before or after you install the VP system software.)

Windows 2000-based systems include the Windows 2000 Defrag utility and therefore do not require the addition of an external disk maintenance utility.

21.10.1 RUNNING DISKEEPER ON NT-BASED SYSTEMS

Use the following procedures to run the Diskeeper utility manually on the NT-based VP system or to set up the utility to run automatically.

To run the Diskeeper disk maintenance utility manually at any time:

1. From the Windows NT desktop, click on the Start button and then select Programs / Diskeeper. From the menu that displays, select the DISKEEPER option. If this is the first time you are running the utility, several welcome screens may display. Provide any requested information. The Diskeeper main screen then displays.

> **Note:** Before running Diskeeper manually during hours when the VP system is actively processing calls, lower the priority assigned to the defragmentation process. You set the priority by selecting the PRIORITY option from the Options pull-down menu on the main Diskeeper screen. Lowering the priority will extend the time it takes to defragment the drive, but it will ensure that call processing by the VP system is not interrupted.

2. On the left side of the main Diskeeper screen, a directory tree identifies the hard drives installed in the PC. Under each drive letter, an ANALYZE option and a DEGFRAGMENT option display. Highlight the ANALYZE option under the drive letter of the drive on which the VP system is installed. Then click on the Go button, which is a small, blue arrowhead icon at the very left of the icon bar shown below the menu bar. Diskeeper analyzes the drive then identifies the number of fragmented files and whether defragmentation would be efficient.
3. If defragmenting the drive is deemed efficient, select the DEFRAGMENT option under the drive letter of the drive on which the VP system is installed. Then click on the Go button. The Diskeeper utility defragments the drive.

To set up the Diskeeper disk utility to run automatically at times you specify:

1. From the Set It and Forget It pull down menu, select the PARTITION SCHEDULES option. From the window that displays, click on the letter of the drive on which the VP system is installed. You can set up the Diskeeper utility to defragment the drive as frequently as you would like, including continually—if you set the utility's run priority to Low (see the Note above for procedures). To set up the utility to run once a day (a standard run rate), set the RUN field to EVERY 24 HOURS. Set the WHEN field to EVERYDAY. Set the BETWEEN fields to run the utility during hours that are the most off-peak phone-usage times for the business, for example 2:30 AM to 5:30 AM.
2. From the Windows NT desktop, click on the Start button and then select Programs / Diskeeper. From the menu that displays, select the DISKEEPER option. If this is the first time you are running the utility, several welcome screens display. Provide any requested information. The Diskeeper main screen then displays.

> **Note:** Because the disk maintenance utility requires significant system resources, do not set the utility to run at 2:00 AM, when the VP system performs report maintenance automatically, or during high call volume hours. In addition, if you've scheduled an automatic backup of the VP system, do not schedule the disk maintenance utility to run during the same period as the backup process.

3. Click on the Start button. The scheduled time identified in the window at the top of the screen updates to identify the next scheduled defragmentation. When you have made all necessary screen modifications, click on the Close button.

21.10.2 RUNNING WINDOWS 2000 DEFRAG ON WINDOWS 2000-BASED SYSTEMS

Use the following procedures to run the Windows 2000 Defrag utility manually on the Windows 2000-based VP system or to set up the utility to run automatically.

To run the Windows 2000 Defrag disk maintenance utility manually at any time:

1. From the Windows 2000 desktop, click on the Start button and then select Run.
2. On the Run screen that displays, type `C:\VM\DEFRAG2K.EXE[space]-ALL` in the OPEN field and click on the OK button.

To set up the Windows 2000 Defrag disk utility to run automatically at times you specify:

1. From the Windows 2000 desktop, click on the Start button, then select Settings / Control Panel. From the menu that displays, select the SCHEDULED TASKS option and press <Enter>.
2. Select ADD SCHEDULED TASK and press <Enter>. The Scheduled Task Wizard window displays.
3. Select the Next button and then click on the Browse button. The Select Program to Schedule screen displays.
4. On the Select Program to Schedule screen, locate the file DEFRAG2K.EXE, typically in the C:\VM directory, and select this file. Then click on the Open button.
5. The Schedule Task Wizard screen displays. In the PERFORM THIS TASK field, select DAILY and then click on the Next button.
6. Select the start time, schedule, and start date for the task. To set up the utility to run once a day (a standard run rate), set the PERFORM THIS TASK field to EVERY DAY. Set the START TIME field to run the utility during hours that are the most off-peak phone-usage times for the business, for example 2:30 AM to 5:30 AM. When you've completed these fields, click on the Next button.

Note:	Because the disk maintenance utility requires significant system resources, do not set the utility to run at 2:00 AM, when the VP system performs report maintenance automatically, or during high call volume hours. In addition, if you've scheduled an automatic backup of the VP system, do not schedule the disk maintenance utility to run during the same period as the backup process.

7. Enter the user name and password and then click on the Next button.
8. Select the OPEN ADVANCED PROPERTIES FOR THIS TASK WHEN I CLICK FINISH field and then click on Finish.
9. On the Task tab, in the RUN field, add a space and then the text "–all" to the end of the task name (defrag.exe). The statement in the RUN field should be:

C:\VM\defrag2k.exe[space]-all

10. Select the Settings tab. In SCHEDULED TASK COMPLETED area, select the STOP THE TASK IF IT RUNS FOR field and change the default 72 hours to 4 hours.

Note:	If the Defrag utility has not completed within the allotted 4-hour time frame, the utility will stop but the Defrag window will remain open on the desktop to alert you that disk maintenance is not complete.

11. Select the OK button and enter the password again on the Set Account Information screen. Click on the OK button. The task will display in the Scheduled Tasks folder.

22. USING THE OUTBOUND TELEMARKETING MODULE

> **Note:** Refer to instructions in section 23 for information on installing the Telemarketing module on VP system systems.

The Outbound Telemarketing module allows you to use the existing VP system to perform outbound telemarketing functions even while the VP system is acting as a voice mail or auto attendant. The VP system always gives precedence to incoming calls, but takes advantage of any idle time by making telemarketing calls on lines not in use (or you can restrict it to use only certain lines on the system).

The VP system can do the job of up to five independently programmable automatic dialing machines, depending on the number of lines you are using. Each "machine" is represented by a Telemarketing box. The 5 Telemarketing boxes are numbered 9970 through 9974.

You supply each Telemarketing box with a file of telephone numbers. The VP system dials each of these numbers in turn. If a number is busy or does not answer, it is placed on a list to be tried again at a later time.

If the called party *does* answer, the VP system can process the call by playing a message, transferring to a live person, asking a series of questions, recording a message, or performing other functions.

The result of every call is documented in a log. This log can be the regular VP system call log, or you can set up the system to save the information to a separate file or send it to a printer.

You can also supply a list of telephone numbers that should not be called. The VP system checks this list before making each outbound call.

22.1 Setting Up a Telemarketing Box

22.1.1 WHAT DOES A TELEMARKETING BOX DO?

All scheduling and control of outbound calls is done via the 5 Telemarketing boxes (9970 through 9974). The Telemarketing box is different from other boxes in that you cannot route callers to a Telemarketing Box. Instead, the Telemarketing box actually generates calls.

22.1.2 ACCESSING THE TELEMARKETING BOX

> **Note:** Refer to section 29 for graphical illustrations of all VP system screens.

To access the Telemarketing box screen through the DOS-based VP system screen interface:

1. From the LINE STATUS screen, press <F10>. The Main menu displays and you are prompted to enter a system password.

2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Customer level passwords on the GENERAL INFORMATION screen.
3. From the Main menu, select BOX INFORMATION. The Box Information menu displays.
4. Select the OPTIONAL FEATURES option, then from the menu that displays, select TELEMARKETING BOX. When you have made necessary modifications to the screen, press <F10> to save the changes. You return to the Box Information menu.

To access the Telemarketing box screen through the Windows-based VP system screen interface:

1. From the Windows desktop, double-click the DATABASE ADMINISTRATOR icon. You are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Administrator level passwords on the GENERAL INFORMATION screen.
3. Access the BOXES pull-down menu.
4. Select the OPTIONAL FEATURES option, then from the menu that displays, select TELEMARKETING BOX. When you have made any necessary modifications to the screen press <F10> to save the changes or click on the Save icon on the screen. You return to the main screen.

Note:	Field names and screen descriptions for both DOS-based and Windows-based systems screens are presented in this section. Each field description identifies the field name used in both types of products. Be advised that due to differences in the screen design between DOS-based and Windows-based systems, the placement of fields on several screens vary slightly. All fields on all screens *are* discussed in this section.
Note:	**To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.**

22.1.3 TELEMARKETING BOX SCREEN FIELD DESCRIPTIONS

Be advised that due to differences in the screen design between DOS-based and Windows-based systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

Fields used in DOS-based systems are prefaced below with **DOSVP**, and fields used in Windows-based systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

Several field descriptions discuss setting fields to YES or NO settings. In Windows-based systems, this equates to checking or un-checking the field's checkbox, which you do by clicking on it.

DOSVP:Box Number
WINVP:Box Number

This field indicates the box number. Telemarketing boxes are numbered from 9970 through 9974. This field identifies which one of the five Telemarketing boxes is being displayed. You cannot modify this field.

DOSVP:Completed
WINVP:Job Complete

This field tells you whether the VP system has completed the out-dialing assignment. The VP system sets this field to YES when it has dialed every number in the list you supplied and when all busy / no-answers have either been answered or have reached the maximum number of re-tries. Once this field has been set to YES, the VP system stops dialing out for this Telemarketing box. When you supply a new list of numbers, you should press <F3> (Reset) to indicate that the VP system should start dialing again from the top of the list. (Windows-based VP system users can also reset the box by clicking the Restart button.)

DOSVP:Box Name
WINVP:Box Name

This field can be used to identify a short description of the out-dialing assignment.

DOSVP:Use Lines in Group
WINVP:Use Lines in area

This field indicates to the VP system which lines it is allowed to use to make its outbound calls. If you are using the VP system as an incoming auto attendant or voice mail processor, you may want to reserve some of the lines for incoming calls only. To restrict the VP system to using, for example, only lines 3 and 4 for outbound calling, place lines 3 and 4 in a line group (such as Line Group B), then indicate the line group here. For more information on setting up line groups, see section 7.16.

DOSVP:Start Date
WINVP:Start Calling on this Date *(When to Call tab)*

This field indicates the date on which you want the VP system to start making calls. The date must be entered in month-day-year format, for example, enter **4-24-98** for April 24, 1998.

DOSVP:End Date
WINVP:Stop Calling on this Date *(When to Call tab)*

This field indicates the date on which you want the VP system to stop making calls. The date must be entered in month-day-year format, for example, enter **4-24-98** for April 24, 1998.

DOSVP:Start Time X ... Stop
WINVP:Start Calling at X … Stop at *(When to Call tab)*

Each Telemarketing box can be programmed to make calls only at specific periods during the day. Up to 3 separate periods can be defined. Enter the time at which the VP system should begin making calls for the first period of the day. In the STOP field, enter the time at which the VP system should stop making the calls. The time must be entered in 24-hour format (for example, for 8:00 PM, enter 20:00).

DOSVP:Call on (Day)
WINVP:Make Calls on area *(When to Call tab)*

You can specify on which days of the week the VP system should make its outbound calls. A YES beside any day indicates the VP system is allowed to make its calls on that day.

> **Note:** To stop a telemarketing job that is in progress, set all days to NO. Next, press <F3> to reset the box. The job in progress will stop making outcalls.

DOSVP:Default Path
WINVP:Directory Containing Telemarketing Files *(File names tab)*

This field contains the sub-directory in which the VP system should look to find the files associated with outbound-dialing. These are:

- The file of telephone numbers to be called
- The file of numbers that should not be called (if such a file exists)
- The file in which the result of each call should be logged. Each Telemarketing box can store the results in a separate file.

If you leave this field blank, it defaults to the root directory of the disk on which the VP system is running.

DOSVP:Source File
WINVP:Name of File Containing Telephone Numbers *(File Names tab)*

This field contains the name of the file that contains the telephone numbers you want to call. Since each Telemarketing box is independent of the others, do not use the same filename for more than one Telemarketing box. This would result in the numbers in the file being called more than one time. (Windows-based VP system users can select the Review File button to view and edit the source file.)

DOSVP:Start Col
WINVP:Telephone Number Start at Position *(File Names tab)*

This field corresponds to the above field. When the VP system reads a line from the source file, the line may contain numbers other than telephone numbers. For example, the line may also have a Social Security number or a Zip Code. Use this field to tell the VP system in what column the telephone number begins. For example, consider the line:

```
John Smith 132 West 4th Street 555-1234 SS#123-45-6789

.........11111111122222222223333...
12345678901234567890123456789012 3...
```

By placing the number 32 in the this field, the VP system knows to skip past the numbers in the address.

DOSVP:Max Digits
WINVP:Maximum Number of Digits to Dial *(File Names tab)*

In the above example, the VP system would start dialing after character position 31 on the line. The VP system allows letters and punctuation in telephone numbers (such as the dash between the **555** and the **1234**) and knows to ignore them. However, in this example, the VP system also ignores the space and the **SS**. Next it reads **#123** in the Social Security number. Because these are valid digits, they are also dialed. To prevent this "over-dialing" use the MAX DIGITS field to inform the VP system of the maximum number of digits it should expect to find in a telephone number. In this case, entering a 7 in this field causes the VP system to dial correctly.

DOSVP:Exclude
WINVP:Name of File Containing "Do not Call" Numbers *(File Names tab)*

If there are telephone numbers that you never want the VP system to call during a telemarketing campaign (for example, emergency numbers), place these numbers in a file, and enter the filename in this field. You define the path to this file elsewhere on this screen (see above). The VP system checks every outgoing call to ensure it does not dial one of the numbers in this file.

DOSVP:Results
WINVP:Name of File to Log Telemarketing Call Results *(File Names tab)*

The VP system stores the result of each call in a file. Each Telemarketing box can write results to its own log file, or you can specify the same log file name in all five Telemarketing boxes. If you want the outbound calls to be stored in the regular VP system log, along with incoming calls, pager calls, etc., then the directory path you enter at the top of the screen should be set to \VM, and the filename VOICMAIL.LOG should be specified in this field. If you want the log to be sent directly to a printer, enter the word PRINTER in this field. Make sure the printer is switched on, is on-line, and is connected to the LPT1 port on the computer.

DOSVP:Wait for Answer
WINVP:Assume No Answer After X Rings *(Call Control tab)*

Once the VP system has dialed a number, it waits for a specified period for an answer (provided it does not detect a busy signal). This field specifies how long it should wait before moving on to the next number on the list. Enter the number of rings to wait.

DOSVP:Retry Busy Number
WINVP:If Called Number is Busy, Try Again After X Minutes *(Call Control tab)*

If the VP system finds that a number is busy, it notes the number and tries it again later. This field specifies the minimum interval (in minutes) between re-tries to a number that is busy.

DOSVP:Re-Try No-Ans Number
WINVP:If Called Number Does Not Answer, Try Again After X Minutes *(Call Control tab)*

If the VP system dials a number, but does not get an answer, it notes the number and tries it again later. This field specifies the minimum interval (in minutes) between re-tries to a number that does not answer.

DOSVP:Number of Re-Tries
WINVP:Number of Times to Re-try Busy / No-Answer Numbers *(Call Control tab)*

If the VP system dials a number, but finds it busy or does not get an answer, it notes the number and tries it again later at intervals specified in other fields. The number of times the VP system re-tries the number is specified in this field.

DOSVP:On Answer, Go to Box
WINVP:When Answer Detected, Go to Box *(Call Control tab)*

Once the VP system determines that a called party has answered and that it is a real person (rather than an answering machine) it processes the call by routing it to another box. For example, this could be:

- A Routing box, playing a greeting and offering various menu selections *("Press 1 to hear about our newest products, press 2 to speak to an operator...")*
- A mailbox, which could immediately transfer the call to a live operator
- A Question box, which would conduct an interview, etc.

DOSVP:Answering Machine Greeting
WINVP:*(No such field)*

The VP system determines that a real person has answered by the length of the greeting. Usually, a person answers by simply saying, *"Hello*," while a typical answering machine plays a longer greeting, for example, *"Hello, you have reached the Smith residence. No one is here to take your call now, please leave a message at the tone."* If the VP system detects a short response, it assumes a live person has answered the call. If the system detects a long response, it assumes the call was taken by a machine. If a greeting is recorded in this field, the VP system plays it when it determines an answering machine has answered. If you do not want to use this feature, do not record a greeting in this field. (See section 28.2 for information on adjusting the answering machine parameters.)

DOSVP:If Answering Machine Detected, Go to Box
WINVP:If Call is Answered by an Answering Machine, Play Greeting, and then Go to Box
(Call Control tab)

When an answering machine is detected, you can send the call to another box after the recorded greeting plays (or immediately, if no answering machine greeting is recorded). This functionality is particularly useful for appointment reminder applications. Outbound Telemarketing can be used to call all patients with appointments pending. When the VP system detects an answering machine, the call can be routed to an IVR box that plays a concatenated message that speaks the date, time, patient's name, etc. into the answering machine rather than playing a generic recording.

22.1.4 SPECIFYING EXTERNAL DIAL RULES

Depending on the source file telephone numbers, you may need to have the VP system add or delete digits before placing calls. For example, if the list contains a mixture of local and long distance numbers, you need to define an Insert rule to add a "1" to the number when required. If the list includes the area code for every number, and you need to remove the local area code from certain numbers, you need to define a Delete rule.

22.2 Detecting Answering Machines

You specify external dial rules in the file DIALRULE.TXT in the \VM directory. The procedure for building these rules is detailed in section 7.25. When you start an outbound telemarketing job, the VP system checks for the existence of the DIALRULE.TXT file and, if the file does exist, follows the rules when dialing. There is no need to "flag" the existence of the dial rules as there is with the Fax Distribution module on the FAX SETUP screen.

When the VP system makes an outgoing telemarketing call, it listens to see if the called number is busy, ringing, or is answered. If the call is answered, the VP system analyzes the voice on the other end to determine if the call has been answered by a real person or by an answering machine.

When a live person answers a ringing telephone, he/she normally gives a brief greeting (such as "*Hello*"), followed by a pause, waiting for a response from the caller. When an answering machine answers a call, it usually plays a longer greeting before recording a message (for example, *"Hello, this is Mary. Sorry I missed your call. Please leave me a message at the tone…").*

The VP system uses these characteristics to determine if the call is answered by an answering machine.

The VP system breaks down the answer period into two stages: STAGE A and STAGE B. During STAGE A, if the VP system detects a short silence (by default, 2 seconds), it assumes the call has been answered by a live person.

If the period of silence is not detected within STAGE A, the VP system assumes that an answering machine is playing its message and waits for the end of the message (denoted by a long silence of about 3 seconds). If the silence period is still not detected within STAGE B, the VP system plays the answering machine greeting at the end of STAGE B anyway.

The following parameters are configurable in the configuration file VM.CFG (see chapter 12):

LENGTH OF SHORT SILENCE (default = 2 seconds)

LENGTH OF STAGE A (default = 5 seconds)

LENGTH OF LONG SILENCE (default = 3 seconds)

LENGTH OF STAGE B (default = 10 seconds)

To change any of these parameters, you must specify all of them as follows:

ANS MACHINE PARMS = w,x,y,z

where:w is the length of the short silence (in seconds, range 0-10)
x is the length of STAGE A (in seconds, range 0-10)
y is the length of the long silence (in seconds, range 0-10)
z is the length of STAGE B (in seconds, range 0-30)

22.3 Setting Up a Telemarketing Application

This section details an example application of the Outbound Telemarketing module.

The Problem

John Smith owns a delicatessen. He has a number of customers who call in for lunch every week-day around noon. Sometimes they call in their orders early, which gives John time to prepare them before the lunch-time rush. However, they often forget, so the orders have to be prepared while they wait at the counter. This is inefficient for both John and his customers.

The Solution

John uses the VP system to call each customer before lunch-time and to take his/her order.

To set up the application, John must consider two factors:

- How the VP system makes the outbound calls.
- How the VP system handles the call once it has been answered.

The Outbound Schedule

First, John collects his customers' telephone numbers and places them in a text file he names LUNCH.LST. The file is stored in the \VM directory.

Next, John accesses a TELEMARKETING BOX screen.

For BOX NAME, John enters LUNCH ORDERS.

Since he wants to run these calls indefinitely, he specifies 01-01-95 (some past date) for the date on which calls are to start and 12-31-99 for the date on which calls are to stop.

John specifies the time at which calls are to start as 10:30 (AM). Since there is no point in calling anyone after lunch-time, he specifies 12:00 as the time at which calls are to stop. This gives the VP system 1½ hours to make the calls. (If this is not enough time to call all his customers, he needs to use more telephone lines).

Since there is no other period in the day during which he wants to call these customers, he leaves the other calling time fields blank.

The LUNCH.LST file containing the telephone numbers is in the VP system directory, so John specifies the default \VM as the directory containing the telemarketing files. He enters LUNCH.LST as the name of the source file containing the telephone numbers. Since he created the file himself, and each line contains only a telephone number, he specifies that the phone numbers start at position 1 (START COL field on non- Windows-based VP systems) and he specifies that the maximum number of digits the VP system is to dial as 7. (All numbers are 7-digit telephone numbers.)

John knows that he can dial all the numbers on his list, so he does not use the EXCLUDE fields (DOSVP) / NAME OF FILE CONTAINING DO NOT CALL NUMBERS field (WINVP).

To keep a log of how things went, he tells the VP system to generate a file called LUNCH.LOG, by entering this filename in the RESULTS field (DOSVP) / NAME OF FILE TO LOG TELEMARKETING CALL RESULTS field (WINVP).

He sets the WAIT FOR ANSWER field (DOSVP) / ASSUME NO ANSWER AFTER X RINGS field (WINVP) to 4 rings.

If a number is busy, he thinks the VP system should wait one minute before trying it again, so he sets the RETRY BUSY NUMBER field (DOSVP) / IF CALLED NUMBER DOES NOT ANSWER TRY AGAIN AFTER X MINUTES field (WINVP) to 1 (minute). If a number does not answer, then that person is probably away from his/her desk, so John sets the corresponding no-answer field to 10 (minutes).

He decides to try each number a maximum of 3 times, so he sets the NUMBER OF RE-TRIES field to 3.

When the party answers, John wants them to hear the recorded message in Box 1000. He specifies this in the field ON ANSWER, GO TO BOX.

Since he does not work weekends, John does not want the VP system to make calls on those days, so he sets the CALL ON fields for Saturday and Sunday to NO (in the Windows-based VP system, he deselects the fields). He sets Monday through Friday to YES (in the Windows-based VP system, he checks the fields). (Actually, however, this entry is not necessary, as the VP system dials the complete list before the end of the day, and re-starts each morning).

John has three telephone lines. He wants to make sure there is always one line free on which he can make calls, so he sets up the VP system to use lines 2 and 3 only. He does this by placing lines 2 and 3 in line group D, and selecting line group D as the line group to use for this Telemarketing Box.

Processing the Answered Call

John has told the VP system to send the call to Routing box 1000 once it has been answered. He records the following greeting in Routing box 1000:

"Hi, this is John at the deli. If you're planning on eating here today, press 1 to give me your order. If you want to hear today's specials, press 2."

Digit 1 routes to mailbox 2000, where the TRANSFER-TYPE is set to NO TRANSFER (see section 5 for information on mailboxes and Routing boxes). John records the greeting in mailbox 2000 as simply, "*Thank-you*." So the VP system says:

"Thank-you, please speak after the tone."

Digit 2 from Routing Box 1000 sends the caller to Routing Box 1001, in which John records descriptions of the day's specials.

Using the Application

Now, every morning, John must do only two things:

- Record a description of the day's specials in Routing Box 1001.
- Reset the Telemarketing box 9970 to make the days calls by accessing it and pressing <F3> (or on Windows-based VP systems, selecting the Restart button).

The VP system waits until 10:30 AM, then uses lines 2 and 3 to begin calling John's customers. As orders arrive, John can call in to the VP system and retrieve the orders from mailbox 2000.

Note:	To stop a telemarketing job that is in progress, set all days to NO in the field CALL ON (DAY) (DOSVP systems) / MAKE CALLS ON AREA (WINVP systems). Next, press <F3> to reset the box. The job in progress will stop making outcalls.

23. INSTALLING AND USING CTI FEATURES

23.1 Implementing VCM

VCM is a feature available with Windows-based systems that provides 5 users (or more if additional VCM licenses are purchased) with a visual interface to their mailboxes. Using VCM, users can play and record greetings and messages, manage message and pager delivery numbers and schedules, direct and screen calls, and perform other tasks from their Windows 98/2000 or Windows NT PC desktops in addition to their telephones.

VCM is installed on the VP system PC automatically when other program files are installed. Note the following system setup considerations, which must be adhered to for VCM to function properly on a LAN:

- The VP system PC must be assigned a static IP address on the network. Note the VP system PC's assigned IP address for future reference. You can check the address by selecting Control Panel from the Start button at the bottom left of the VP system PC screen, then selecting Network tab / Protocol / TCPIP/ Properties.
- VCM communicates with client PCs on the network by passing TCP/IP information packets. Therefore, the network on which the VP system is installed must run TCP/IP. To verify that the VP system PC can communicate with clients using TCP/IP, open a window on a client machine and type `PING` *`IPADDRESS`* then press <Enter> (where *`IPADDRESS`* is the static IP address assigned to the VP system PC. If the ping does not reveal that the machines are communicating, the network most likely is not set up to properly run TCP/IP, and the client PC and VP system PC are attempting communications using a different protocol (such as NetBIOS or IPX/SPX). Though you may be able to locate the VP system PC by browsing over the network, the client and VP system PC can communicate only if the TCP/IP protocol is functioning properly.
- The first time a subscriber logs into VCM from a client PC, the program broadcasts to find the VP system PC's IP address. The client PC then stores that address in its registry, and references it during future logins. During their initial login, subscribers will notice a slight delay (as the broadcast initiates) before VCM permits access to the mailbox.
- If you are setting up the VP system to operate on a WAN, you must hardcode the IP address assigned to the VP system PC in each client PC's registry. Note that using VCM in a WAN environment is not recommended due to data integrity issues.
- The following two configuration file entries must be present in the VM.CFG file. These entries are made automatically when Windows-based VP system software is installed on the VP system PC. If, however, you encounter operational problems with VCM, ensure both entries are present in the VM.CFG file:

```
VCM NAME=TCPIP
EXPORT PATH=C:\VM
```

You install VCM on the subscriber's PC using the VP system installation CD ROM or by accessing the client software installation program over the network from the VP system PC.

In addition to installing client software on subscriber PC's, you must also modify the mailbox assigned to each subscriber who will be using VCM by checking the USES CLIENT DESKTOP APPLICATIONS field on the subscriber's MAILBOX screen. You make this mailbox modification from the VP system PC before or after installing VCM client software on the subscriber's PC.

23.1.1 SETTING UP SUBSCRIBER WORKSTATIONS TO USE VCM

VCM client software requires a PC that is running Windows 98/2000 or Windows NT. The PC must have at least 10 MB of free hard disk space—5.5 for the installation of VCM files and approximately 5 or more for the recording and playback of messages and greetings. If the subscriber's PC is equipped with a sound card and speakers, the subscriber can use the PC's multimedia features for playing messages and greetings. If the PC does not include this equipment, the subscriber must use the telephone handset for these operations.

To install VCM client software on a subscriber PC using the VP system installation CD ROM:

1. Insert the VP system installation CD ROM in the CD ROM drive on the subscriber's PC. If the installation routine automatically starts, cancel out of the installation on the first available screen.

2. Select the Start button from the Windows 98/2000 or Windows NT desktop, then select Run. The Run dialog box displays.
3. In the OPEN field, type D:\VCM\SETUP.EXE (where D: is the letter of the CD ROM drive).
4. Follow the on-screen prompts to complete the installation.

> **Note:** We strongly recommend that you accept all default installation entries. Doing so will facilitate any system support efforts that may be necessary.

Once the installation process is complete, the PC desktop is updated to include a VCM program icon. To start VCM, the subscriber simply double-clicks on this icon.

> **Note:** A subscriber cannot use VCM unless the USES CLIENT DESKTOP APPLICATIONS field is activated on his/her MAILBOX screen.

To install VCM client software on a subscriber PC by accessing files over the network:

You can easily install VCM software on subscriber PCs by first installing the client software on a network drive accessible by subscriber PCs. Simply create a directory on the network, and copy the contents of the \VCM sub-directory on the VP system installation CD ROM into that directory. To install the client software on subscriber PCs by accessing files over the network, use the following procedure:

1. Select the Start button from the Windows 98/2000 or Windows NT desktop, then select Run. The Run dialog box displays.
2. In the OPEN field, type [PATH]\SETUP.EXE (where [PATH] is the complete drive and directory path to the network directory into which you copied the VCM files).

3. Follow the on-screen prompts to complete the installation.

> **Note:** We strongly recommend that you accept all default installation entries. Doing so will facilitate any system support efforts that may be necessary.

Once the installation process is complete, the PC desktop is updated to include a VCM program icon. To start VCM, the subscriber simply double-clicks on this icon.

23.1.2 ADJUSTING SUBSCRIBER MAILBOXES TO PERMIT VCM ACCESS

Before a subscriber can use VCM, the USES CLIENT DESKTOP APPLICATIONS field on the subscriber's MAILBOX screen must be checked. Use the procedure detailed below.

To adjust a subscriber's mailbox to permit VCM access:

1. From the Windows desktop of the VP system PC, double-click the DATABASE ADMINISTRATOR icon. You are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password.
3. Access the BOXES pull-down menu.
4. Select MAIL BOX from the Boxes menu. Use the Select button to access the MAILBOX screen for the subscriber to be permitted VCM access.
5. Move the cursor to the USES CLIENT DESKTOP APPLICATIONS field on the General tab. Check the box by clicking on it or by pressing the Spacebar.
6. Use the Select button to modify additional subscriber mailboxes as necessary.
7. Press <F10> to save the changes or click on the Save icon on the screen. You return to the main screen.

BE ADVISED:

For a client PC to be able to communicate with the VP system PC, the following two lines must be present in the client PC's registry after the line LastAdapter=0:

DestRemFtpIP=*VMSERVIP*
DestVmIp=*VMSERVIP* (where *VMSERVIP* is the IP address of the VP system PC)
InstallDir=C:\VCM(on workstations running NT workstation or NT server software and workstations running Windows 2000. C is the hard drive of the client PC)

These entries are made automatically when VCM client software is installed on the VP system PC. **If, however, you intend to operate VCM over a WAN or you encounter problems with VCM, you should ensure both the above entries are present in the registry and that they reflect the correct IP address of the VP system PC.**

You can edit these entries in the PC's registry by clicking on the Start button at the bottom-left of the PC screen, selecting Run, then typing REGEDIT and pressing <Enter>. Next, select HKEY_CURRENT_USER \ SOFTWARE \ KEYVOICE \ VCM \ 2.

23.1.3 USING VCM

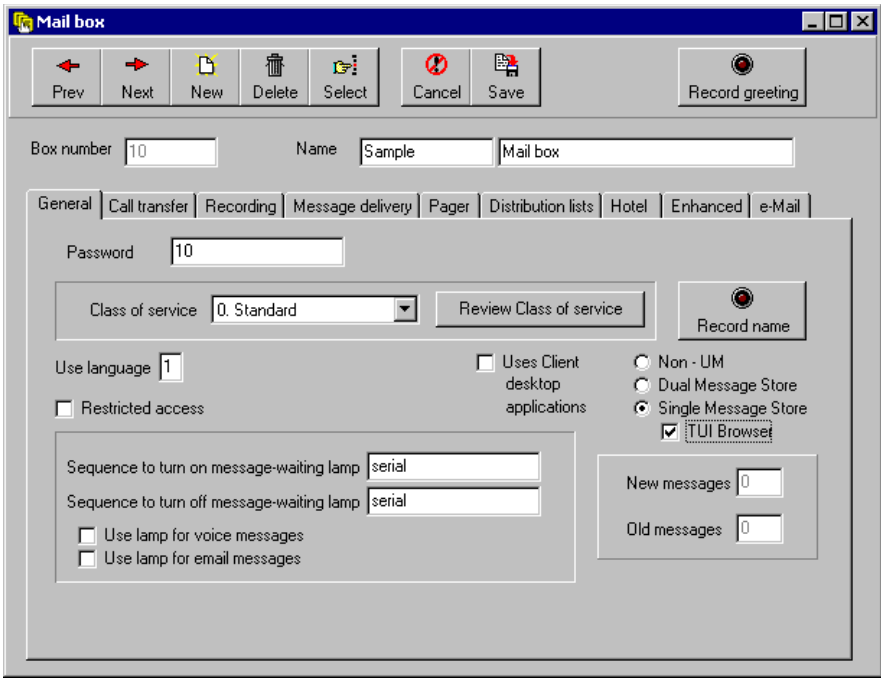
VCM has been designed with an intuitive user interface that allows users to move easily through the program and use the program's options and features. Extensive online help is also available to assist new users with understanding the program's functionality. To access online help, use options provided on the Help pull-down menu.

23.2 Implementing Unified Messaging

On Windows-based systems, each mailbox can be configured one of two ways to provide the mailbox owner with unified messaging features:

Using a *Dual Message Store*

Using a *Single Message Store*



The functionality associated with each type of setup is detailed below and throughout section 22.2. Be advised of the following important points:

- The Dual Message Store (DMS) setup is the only unified messaging setup option provided with versions 10.0-10.2 of the VP system. This setup option is retained (and in no way changes functionally) in versions 10.3 and higher of the VP system.
- The Single Message Store (SMS) setup option is available with or without a "TUI Browser" functionality. The information below identifies how the Single Message Store option will function with and without the TUI Browser functionality.

Understanding the Dual Message Store Mailbox

When a mailbox is set up as a Dual Message Store unified messaging mailbox, the mailbox owner's voice mail and fax mail messages are stored on the VP system PC *and* automatically copied to a Microsoft Outlook e-mail Inbox. The voice mailbox owner can access the voice and fax mail messages either by calling into his/her voice mailbox or by selecting the messages from the Microsoft Outlook e-mail Inbox window (as he/she accesses e-mail messages). Unified messaging client software, provided with the VP system and installed on the subscriber's client PC, maintains synchronization between the message stores on the VP system PC and in the Inbox, so messages saved or deleted via the telephone are updated in the Microsoft Outlook Inbox and vice versa.

Optionally, text from e-mail messages that arrive in the mailbox owner's Inbox can be copied automatically to the VP system PC. When e-mail message text is copied to the VP system PC, the mailbox owner can call into his/her voice mailbox over the telephone to listen to e-mail text through a text-to-speech e-mail reader installed on the VP system PC. (The e-mail reader is an optional add-on feature to the unified messaging feature.)

With the Dual Message Store option, the mailbox owner can also compose and send *voice* mail messages (in addition to e-mail messages) to other system subscribers as well as other non-subscribers from his/her PC desktop through the Microsoft Outlook Inbox application. (Voice mail messages composed through the Inbox and sent to non-subscribers outside the VP system arrive as e-mail messages with an audio (voice) file attachment. To hear a voice message sent this way, the recipient must open the e-mail, then open the audio attachment and play the message through speakers on the PC. Voice mail messages composed through the Inbox and sent to other VP system subscribers arrive as voice mail messages. These recipients can call into their voice mailboxes to hear these messages or, if they too are unified messaging users, they can access these voice mail messages through their Microsoft Outlook Inbox.)

Understanding the Single Message Store Mailbox and TUI Browser

When a mailbox is set up as a Single Message Store unified messaging mailbox, all voice mail and fax mail messages left for the mailbox owner are "repackaged" as e-mail messages with audio (voice) or .TIF (fax) file attachments. These repackaged messages are then automatically forwarded to an SMTP e-mail account specified for the voice mailbox owner. A copy of the voice and fax mail messages is retained on the VP system PC as well.

The voice mailbox owner can access the repackaged voice mail and fax mail messages the same way he/she accesses e-mails, from *any* client PC e-mail Inbox application. When the owner accesses repackaged voice and fax mail messages from the Inbox, audio attachments (voice mail messages) play through the PC speakers and .TIF attachments (fax mail messages) display on-screen.

Single Message Store mailbox owners can also call into their mailboxes over the telephone to access voice and fax mail messages, even though these messages have been repackaged and forwarded on to the e-mail server.

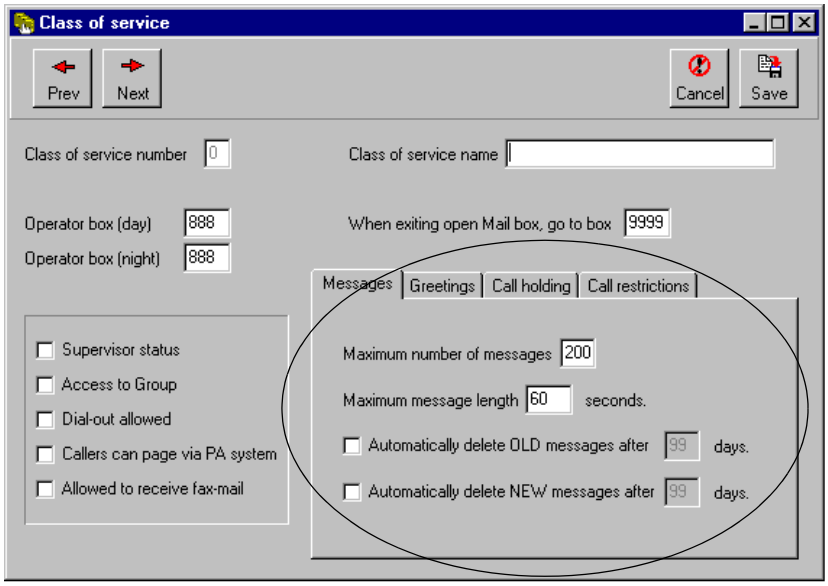
TUI Browser Option ENABLED on Mailbox Screen	TUI Browser Option DISABLED on Mailbox Screen
When the owner calls in over the telephone to access voice and fax messages, the VP system accesses the re-packaged e-mail **from the e-mail server** and opens each e-mail with an audio attachment and/or .TIF attachment, so the owner can manipulate the audio or .TIF attachment via the telephone.	When the owner calls in over the telephone to access voice and fax messages, the VP system accesses the copies retained **on the VP system PC**, so the owner can manipulate the voice or fax mail message.
All messages—voice mail, fax mail, and e-mail—are only accessible from the e-mail server. There is no need to synchronize multiple message stores because message counts and status changes are read from and applied to only the messages stored on the e-mail server. For example, when the mailbox owner deletes a message through the phone, it is deleted (or placed in a Deleted Items folder) on the e-mail server. **NOTE:** The original voice and fax mail messages retained on the VP system PC (after copies are repackaged and sent to the e-mail server) are purged by Automatically Delete options you set on the Class of Service screens. See below for more information.	A copy of each repackaged voice and fax mail message is retained on the VP system PC. This way, users who are not given TUI Browser privileges can still access voice and fax mail messages by calling into their voice mailboxes over the telephone (in addition to accessing the re-packaged voice and fax mail messages from the Inbox). It is important to note, however, that there is no synchronization between the message copies stored on the VP system PC and those that are repackaged and sent to the e-mail server. When the mailbox owner deletes a message through the phone, it is not deleted (or placed in a Deleted Items folder) in the Inbox. If the mailbox owner deletes the message from his/her Inbox, he/she must also call in through the voice mailbox to re-delete the message from the VP system PC.

You can reduce or eliminate redundant message storage by configuring the voice mailbox to automatically purge voice and fax mail message copies stored on the VP system PC after a specified length of time. Do so by modifying the class of service assigned to the Single Message Store-enabled mailboxes. In the class of service, set the fields AUTOMATICALLY DELETE OLD/NEW MESSAGES AFTER [BLANK] DAYS to the length of time you want the message copies to reside on the VP system PC.

For TUI-enabled mailboxes, set these fields to 0, so messages are deleted as quickly as possible from the VP system PC once they are repackaged and sent to the e-mail server. There is no reason to retain voice and fax mail message copies on the VP system PC for TUI-enabled mailboxes, because these users will access and manipulate only the repackaged messages stored on the e-mail server, whether they are calling in through their voice mailbox or working from the Inbox interface.

For *non*-TUI-enabled mailboxes, you can choose when or if ever voice and fax mail messages stored on the VP system PC are automatically deleted. By setting up class of service options to automatically delete voice and fax messages from the VP system PC, you prevent the mailbox owner from having to manually delete the messages twice—from Inbox *and* by calling into the mailbox on the VP system over the telephone (remember, for these users there is no synchronization between voice and fax messages stored in the Inbox and copies stored on the VP system PC like there is with the Dual Message Store unified messaging setup option). Be advised that once the copies of voice and fax mail messages

are automatically deleted from the VP system PC, they can no longer be accessed by the mailbox owner when he/she logs into the voice mailbox over the telephone. The copy of each voice and fax message that was repackaged and sent to the e-mail server is accessible from the Inbox interface until the mailbox owner deletes it via the Inbox. (Message copies stored in the e-mail Inbox are unaffected by entries you make on the Class of Service screen.)



Whether the Single Message Store mailbox owner is TUI enabled or non-TUI enabled, unlike with the Dual Message Store option, there is no proprietary VP system unified messaging client software installed on a Single Message Store mailbox owner's client PC, and a Microsoft Outlook e-mail Inbox is not required. Starting with the 10.4 release of VP system software, however, Single Message Store mailbox owners using Microsoft Outlook can install a desktop compose tool, the Inbox Voice Messenger, so they can compose and send *voice* mail messages (in addition to e-mail messages) from the Inbox.

Note:	Telephone playback of voice messages through the Microsoft Outlook Inbox is not available with the 10.4 release of the Inbox Voice Messenger.

Understanding the Advantages of Each Message Storage Type

The following table identifies considerations for using each type of message store:

Consideration	Single Message Store – TUI Enabled	Dual Message Store
E-mail Inbox software requirement	Voice and fax mail messages can be sent to any SMTP compliant e-mail address, and therefore, placed into any SMTP-compliant client Inbox application. There is no limit on the number of Inbox messages supported by this configuration.	Requires Microsoft Outlook Inbox (installed in Corporate or Workgroup mode). A subscriber's voice mailbox on the VP system PC can contain a maximum of 250 messages. If the subscriber's Inbox is set up to copy e-mails to the VP system PC (so the subscriber can access them using the text-to-speech e-mail reader over the telephone), the subscriber must ensure his/her voice mailbox does not fill with e-mail message copies from his/her Inbox. If it does, the voice mailbox will be unable to accept ANY new messages: voice, fax, or e-mail.

Consideration (Continued)	Single Message Store – TUI Enabled	Dual Message Store
E-mail server requirements and considerations	The e-mail server must be an IMAP4 compliant e-mail server. Sufficient space on the e-mail server is required to house voice mail and fax mail messages. TCP/IP must be running on the network. The network bandwidth, e-mail server hardware, and network connection between the e-mail server and the VP system PC must be robust due to the additional volume of network traffic between the e-mail server and the VP system PC. VP system users will notice a degradation of system performance if the connection to and performance of the e-mail server is in any way impaired. TUI Browser option users will loose telephone access to all message types when the e-mail server is not accessible (for example, if the proxy server is not available, e-mail server is down, or network connection is lost).	The e-mail server must be POP3 compliant if the PEC is to operate for any mailbox owners (see information on the PEC later in this section). TCP/IP must be running on the network. Dual Message store option users will not loose telephone access to voice or fax messages if the e-mail server is not accessible (for example, if the proxy server is not available, e-mail server is down, or network connection is lost).
VP system unified messaging client software requirement	No client software must be installed on the client PC running the Inbox application.	Requires that proprietary VP system client software is installed on the client PC running the Microsoft Outlook Inbox.

Consideration (Continued)	Single Message Store – TUI Enabled	Dual Message Store
E-mail reader support	Supports an e-mail reader capability for accessing and "hearing" e-mail text when calling into a voice mailbox over the telephone. When a TUI Browser user attempts to access ANY type of message (voice, fax, or e-mail) by calling into his/her voice mailbox, a text-to-speech port is used during message playback. Therefore, to accommodate message playback needs, sites with several TUI Browser users usually purchase more text-to-speech port licenses than sites with users primarily set up with the Dual Message Store option.	Supports an e-mail reader capability for accessing and "hearing" e-mail text when calling into a voice mailbox over the telephone. When a Dual Message Store user attempts to access an e-mail message by calling into his/her voice mailbox, a text-to-speech port is used during message playback.
Compose voice mail messages through the Inbox support	Starting with release 10.4, the Inbox Voice Messenger is available for Microsoft Outlook Inbox users to compose and send voice mail messages to subscribers and non-subscribers.	Users can compose and send voice mail messages to subscribers and non-subscribers from within the Outlook Inbox application.
Use of future delivery and message receipt confirmation features	These features are disabled for Single Message Store with TUI browser users due to interaction limitations between the e-mail server and the VP system PC. Because all messages are stored on the e-mail server, the VP system PC is unable to perform future delivery and receipt confirmation features	These features function normally.

Consideration (Continued)	Single Message Store – TUI Enabled	Dual Message Store
Use of message delivery and pager delivery features	These features are disabled for Single Message Store with TUI browser users due to interaction limitations between the e-mail server and the VP system PC. Because all messages are stored on the e-mail server, the VP system PC is unable to perform message delivery and pager delivery. As a workaround, the auto-forwarding feature can be set up to send messages to another phone number or e-mail address.	These features function normally.
Notification of attachments	When a Single Message Store user accesses an e-mail message by calling into his/her voice mailbox, he/she is notified of any file attachments to that e-mail. If the attachment is a .TXT file, it is voiced to the user through the text-to-speech e-mail reader.	When a Dual Message Store user accesses an e-mail message by calling into his/her voice mailbox, he/she is not informed of any file attachments to that e-mail.
Message synchronization	With the TUI Browser option enabled, there is no synchronization necessary between multiple message stores because all messages—voice mail, fax mail, and e-mail—are accessed from the e-mail Inbox.	Provides synchronization between message stores on the VP system PC and Inbox application, so message status is updated automatically between message stores.
Web access support	Voice mail and fax mail messages are stored alongside of e-mail messages in an Inbox application. If the Inbox owner can access his/her e-mail messages via the web, he/she will be able to access the voice and fax mail messages using the same technique.	Does not provide fully supported web access to voice mail and fax mail messages stored in the Outlook Inbox. Issues involve latency of voice mail playback and synchronization loss between VP system PC and Inbox (messages are not automatically deleted off VP system PC when they are deleted through web access).

Consideration (Continued)	Single Message Store – TUI Enabled	Dual Message Store
Message waiting indicator support	Desktop telephone message waiting indicators do not function to indicate any type of new messages for Single Message Store unified messaging users. Because all messages are repackaged and sent to the e-mail server, and the phone system cannot monitor message status on the e-mail server, message waiting indicators are not available. Message waiting indicators will be available in a future release.	Dual Message Store unified messaging users have full functioning message waiting indicators. Indicators can be set to light for voice and fax mail messages only, for e-mail messages only, or for all message types.

Consideration (Continued)	Single Message Store – TUI Enabled	Dual Message Store
Additional information	The Single Message Store unified messaging feature is not sold on a per seat license and is available to all subscribers on the Windows-based VP system. The TUI Browser option is sold on a per seat license and can be enabled for any Single Message Store user. When the TUI Browser option is enabled for a mailbox, all voice and fax mail messages are repackaged and stored on the e-mail server as e-mail messages with audio (voice) or .TIF (fax) attachments. Therefore, although they can be accessed through the telephone, they can be forwarded only as e-mail messages with audio (voice) or .TIF (fax) attachments. To forward the message via the telephone, the mailbox owner inputs a voice mailbox number, but for the message to be forwarded, the recipient must have his/her e-mail address specified on the E-mail tab on his/her Mailbox setup screen. If an e-mail message contains both text and a .WAV file attachment, the TUI Browser user will hear the text spoken via the e-mail reader and the .WAV attachment (if the attachment is in a supported format—8K 8bit muLAW or 8K 8bit Linear .WAV file).	The Dual Message Store unified messaging feature is sold on a per seat license. If 25 seats were purchased, only 25 subscribers can have the Dual Message Store unified messaging feature running with their desktop Outlook Inbox at one time. Similarly, access to the e-mail reader feature is sold on a by-port license. If a 2-port license is purchased, only 2 subscribers can access and use the e-mail reader feature to hear their e-mail over the telephone at one time. If Dual Message store user working from his/her Inbox attempts to forward a voice/fax mail message to another subscriber, and if that original message recipient types text onto the Forward Message form that displays, the text will not voice to the forwarding recipient if that recipient retrieves the forwarded voice mail by calling into the system over the telephone. The forwarding recipient will see text added on the Forward Message form only if the he/she accesses that forwarded message through a unified messaging Inbox interface.

23.3 SuperUser Access to Exchange 2000

Beginning with software release 11.0, Service Pack 1, Superuser access to Exchange 2000 was added. This function allows designated users the ability to access remotely stored messages of individual mailboxes. You may create a Proxy user per single user, or one per set of users. or one for all users. The Proxy User should have a non-expiring password, and can be set up to restrict access into any machine in the domain for security reasons.

23.3.1 INSTALLATION AND SETUP FOR PROXY USER

Setup of the Proxy User is accomplished by the following steps.

1. Create a Proxy Group
2. Create a Proxy User
3. Set the Proxy User Rights to a Mailbox
4. Setup the Interchange Mailbox

Create a Proxy Group

The proxy group is created by the IT Administrator to allow the option of managing departments or user groups as a singe user. It is a common container and should not be used to manage individual mailboxes. User the following procedure to setup the group on the Exchange 2000 server.

1. From the Exchange 2000 server, open *Active Directory Users and Computers*, and then right-click on *Users* and then select *New* and then *Group*.
2. Enter *SMSProxy* as the group name. Select *Global* as the Group scope and *Security* as the Group type; Click *Next*.
3. Select *Create an Exchange email address*. Click *Next*
4. Click *Next* and then *Finish* to create the SMSProxy group.

Create a Proxy User

This procedure will assign a Proxy User to the group just created.

1. From the Exchange 2000 server, open *Active Directory Users and Computers*, and then right-click on *Users*, and then select *New*, and then *User*.
2. Enter *SMSProxyUser* and the first name and the *User Logon name*. Click *Next*.
3. Enter a password for this user and confirm the password.
4. Select *Password never expires*. Click *Next*.
5. Accept the defaults for creating a mailbox by clicking *Next*. Click *Finish* to create the user.
6. From the *Active directory Users and Computers* window, open the Users folder to list the users.
7. Locate *SMSProxyUser* and right click, then select *Properties*.
8. Select the *Member of* tab.
9. Add the SMSProxyUser to the SMSProxy group by clicking the *Add* button. Find the SMSProxy group and double click it to have it chosen. Click the *OK* button to finish adding the user to the group.

   (a) Select SMSProxy on the *Member of:* screen and click *Set Primary Group*

(b) Select the default user group that the SMSProxy User previously belonged to and click the Remove button. Click *Apply* and then *OK*.

Setting the SMSPROXYUSER RIGHTS TO A MAILBOX

1. From the *Active Directory Users and Computers* window, open the *Users* folder
2. Select *View* from the menu bar and select *Advanced Features*.
3. Select the SMSProxy user and right-click to display the drop-down menu. Select *Properties*.
4. Select the button labeled *Mailbox Rights*.
5. Click *Add* to add the SMSProxy User.
6. Select the SMSProxy User and click *OK*.
7. Click to add a check mark for Allow at Full *mailbox access*.
8. Click to remove the check mark at *Delete mailbox storage*.
9. Repeat the above steps for each user who will use SMS proxy user.

Setting Up INTERCHANGE

1. From the Database Administrator window of the Interchange VP system, click on *System* and select *IMAP4 Servers*.
2. Open IMAP4 Servers to program the proxy user for each email server or each proxy user created. Click *New*, and modify the fields to match your proxy user and server information.

23.4 Implementing DMS Unified Messaging and E-mail Reader

Dual Message Store unified messaging allows subscribers to access and manage their voice mail messages, including those with fax attachments, alongside their e-mail messages—all in one place, a Microsoft Outlook Inbox. This way, in addition to viewing and sending e-mail messages, unified messaging subscribers can listen to and work with voice mail messages and view and manipulate fax messages, all from their PC desktop Inbox.

The e-mail reader furthers this overall message management capability by allowing subscribers who are away from their Inbox to call in to their voice mailbox to manage all their voice and e-mail messages. Subscribers can hear, reply to, and forward voice mail messages, as well as work with e-mail messages and fax mail messages, all by calling in from any telephone.

Access to the Dual Message Store unified messaging feature is sold on a per-seat license. If 25 seats were purchased, only 25 subscribers can have the unified messaging feature running with their desktop Outlook Inbox at one time. Similarly, access to the e-mail reader feature is sold on a by-port license. If a 2-port license is purchased, only 2 subscribers can access and use the e-mail reader feature to hear their e-mail over the telephone at one time.

23.4.1 UNDERSTANDING REQUIREMENTS FOR DMS AND E-MAIL READER

The unified messaging and e-mail reader features function on any local area network (LAN) running the TCP/IP protocol. LANs that can run this protocol include Windows 98/2000, Windows NT, and Novell LANs. For information on setting up TCP/IP protocol, contact a LAN administrator.

E-mail Client Software Requirements for Dual Message Store Unified Messaging

The unified messaging features function with Outlook 98 or Outlook 2000 installed in Corporate or Workgroup mode. **Unified messaging will not function with other client e-mail packages, including Outlook Express or either Outlook 98 or 2000 installed in Internet mode.**

> **Note:** If Internet Explorer is installed on the client PC, verify that it is not set up to run Outlook Express as the default e-mail client. Instead, it must specify Microsoft Outlook.

E-mail Client Hardware Requirements for Dual Message Store Unified Messaging

The hardware requirements for client PCs running unified messaging vary based on the requirements necessary for the e-mail application on the client PC.

To run Outlook 98, client PCs require:

- 486/66 minimum processor
- Microsoft Windows 98 or Microsoft Windows NT 4.0 version 4.0 Service Pack 3 or later
- For Windows 98:
  - 8 MB of RAM for the operating system, plus an addition 8 MB of RAM for Outlook
- For Windows NT/2000 Workstation:
  - 16 MB of RAM for the operating system, plus an additional 8 MB of RAM for Outlook
- 34-121 MB of available hard-disk space (This number will vary depending on configuration.)
- VGA or higher-resolution monitor
- Microsoft Mouse or compatible pointing device

To run Outlook 2000, client PCs require:

- Pentium 75 megahertz (MHz) or higher processor
- Microsoft Windows 98 or later operating system, or Microsoft Windows NT Workstation version 4.0 Service Pack 3 or later
- For Windows 98:
  - 16 MB of RAM for the operating system, plus an addition 8 MB of RAM for Outlook
- For Windows NT Workstation:
  - 32 MB of RAM for the operating system, plus an additional 8 MB of RAM for Outlook
- 153 MB of available hard-disk space (This number indicates typical installation and will vary depending on configuration.)
- CD-ROM drive
- VGA or higher-resolution monitor; Super VGA recommended
- Microsoft Mouse or compatible pointing device

23.4.2 UNDERSTANDING HOW DMS AND E-MAIL READER FUNCTION ON THE LAN

Dual Message Store Unified Messaging

Understanding the Agent and the Relationship Between the Client PC Outlook Inbox and the VP system PC

Unified messaging client software works in conjunction with a Microsoft Outlook 98 or 2000 Inbox (installed in Corporate or Workgroup mode). When you install and configure unified messaging client software on a client PC, a component of the client software referred to as the "agent" runs on the client PC's desktop once Outlook is invoked. The agent continues to run on the PC until the user closes Outlook by selecting the File menu option EXIT AND LOG OFF or until the user shuts down the PC.

Note: While the agent is running the following icon displays at the bottom right of the client PC screen:

The agent is the client software component responsible for communicating with the VP system PC. When the status of the Outlook Inbox changes (new e-mail messages arrive, for example), the agent notifies the VP system PC via TCP/IP packets. A copy of the text in any new e-mail message is transported to the VP system PC. This communication allows:

- **The VP system PC to keep message waiting lights on the subscriber phones up to date.** (Message waiting lights on phones at unified messaging PC workstations can reflect new voice mail and e-mail, only voice mail, or only e-mail. This is configurable on a mailbox by mailbox basis on each subscriber's MAILBOX screen.)
- **The VP system PC to relay accurately the client Inbox status (number of new and saved e-mail and voice mail messages) to a subscriber when he/she calls his/her voice mailbox through the telephone**. (Message counts for unified messaging subscribers reflect both new voice mail and e-mail.)
- **The subscriber to retrieve e-mail messages along with voice mail messages when he/she calls in to his/her voice mailbox over the telephone.** Text from each e-mail message is copied to the VP system PC from the e-mail server. A subscriber can hear each e-mail's text by calling into his/her mailbox on the VP system PC. Text is voiced to the subscriber through a text-to-speech e-mail reader feature available on the VP system PC. (Attachments to e-mails are not opened or voiced.)

In addition to communicating to the VP system PC whether and when e-mail messages are received in the client PC Outlook Inbox, the agent also monitors the VP system PC and notifies the client Outlook Inbox via TCP/IP when new voice mail messages arrive on the VP system PC. This way, voice mail messages display in the Inbox window alongside new and saved e-mail messages, and they can be retrieved via the Inbox interface. Subscribers can play, delete, save, and otherwise work with the voice mail messages by selecting them through the Inbox interface.

While the agent is running, it continuously maintains synchronization over the network between the Outlook Inbox on the client PC and the mailbox for the subscriber on the VP system. This means that if the subscriber deletes a voice mail message through the Inbox interface, it is simultaneously deleted from the subscriber's mailbox on the VP system PC. And if the subscriber deletes a voice mail message by logging into his/her voice mailbox and listening to the message over the telephone, the message is deleted from the Outlook Inbox on the client PC.

Understanding the E-mail Reader Feature

If the subscriber logs off of the client PC Outlook Inbox by selecting the File menu option EXIT AND LOG OFF or shuts off the client PC, the e-mail server cannot deliver new e-mail messages to the client PC Outlook Inbox. Subsequently, the agent running on that client PC cannot copy new e-mail messages to the Inbox owner's voice mailbox on the VP system PC. Also, since the client PC Outlook Inbox is not running, the agent cannot transport new voice mail messages received on the VP system PC to the Outlook Inbox. This means when the subscriber shuts down the Outlook Inbox, the agent is disabled.

At these times, the VP system PC's Proxy E-mail Client service (or *PEC*) acts on behalf of the agent on the client PC. The PEC uses POP3 technology to poll the e-mail server periodically—logging into the e-mail server on the client PC's behalf, and retrieving textual copies of e-mail messages that have arrived for the client/subscriber. The PEC works this way whenever the agent is not running on the client PC. This way, e-mail messages are still copied to and available along with voice mail messages on the VP system PC. A subscriber calling in to his/her mailbox over the telephone (such as from other outside phones, for example) can still retrieve, save, delete, and otherwise work with both types of messages. Like with each voice mail message, when listening to each e-mail message, the subscriber can rewind, fast-forward, or pause the message playback, then save, delete, and reply to the e-mail by making keypress entries on the telephone handset.

Be advised that the PEC feature functions with any e-mail server that is POP3 compliant, such as Exchange Server and many others, including those used by Internet Service Providers. For complete functionality, the e-mail package must use SMTP when sending e-mails. If it does not, when the subscriber accesses an e-mail over the telephone when his/her Outlook Inbox is not running on the desktop, the subscriber loses the ability to record a voice mail reply to a message and send that message via e-mail.

Note:	In an Exchange Server environment, the e-mail Mailbox Name and User name set up for a user must be identical. Otherwise, that individual will be unable to access the e-mail reader feature. Also, the unified messaging feature supports both Exchange server-based and Personal Folders-based Inboxes.

Whether the agent is up and running on the client PC desktop, transporting messages back and forth to the VP system PC, or the PEC is retrieving messages from the e-mail server for the VP system PC, a subscriber can use the e-mail reader feature to call in to a voice mailbox over the telephone and access e-mail messages in addition to voice e-mail messages.

When a subscriber accesses his/her mailbox over the telephone and works with e-mail messages (saves them or deletes them for example), information on the updated status of each e-mail message is retained on the VP system PC. If the agent is running on the client PC associated with that mailbox, the updated status of the message is immediately communicated from the VP system PC to that client

PC Outlook Inbox, and the message is displayed appropriately in the Inbox (a message saved by a subscriber calling into his/her mailbox over the telephone appears as a Saved message in the Inbox, for example). If the PEC is running (instead of the agent), the updated status of the message is communicated from the VP system PC to the client PC Outlook Inbox the next time the subscriber logs into his/her Outlook Inbox and the unified messaging client software agent is restarted for that Inbox. When the Outlook Inbox is restarted, these steps take place:

1. The e-mail server populates the Inbox with new e-mails that have arrived for the subscriber.
2. The agent updates the status of each of those e-mail messages with any status changes that were made by a subscriber who worked with those e-mail messages by calling into his/her voice mailbox from the telephone while the agent was inactive.
3. The agent populates the Outlook Inbox with any new voice mail messages stored for the subscriber on the VP system server.
4. The agent updates the status of any voice mail messages stored in the Outlook Inbox with any status changes that were made by a subscriber who worked with those voice messages by calling into his/her voice mailbox from the telephone while the agent was inactive.

Understanding Synchronization

Synchronization involves the ability of the VP system to effectively monitor the number of new and saved voice and e-mail messages a subscriber has, and use this information accurately:

- Activate and de-activate the subscriber's telephone message waiting light. (As stated earlier, message waiting lights on phones at unified messaging PC workstations can reflect new voice mail and e-mail, only voice mail, or only e-mail. This is configurable on a mailbox by mailbox basis on each subscriber's MAILBOX screen.)
- Voice message counts over the telephone that accurately reflect the actual status of the subscriber's Outlook Inbox on his/her client PC. (As stated earlier, message counts for unified messaging subscribers reflect both new voice mail and e-mail.)
- Update the status of a voice and/or e-mail message in a mailbox on the VP system PC when a subscriber changes the status of that message by working with it from the Outlook Inbox on a unified messaging-enabled client PC.
- Update the status of a voice and/or e-mail message in the Outlook Inbox on a unified messaging-enabled client PC when the subscriber changes the status of that message by working with it when calling into his/her voice mailbox from a telephone.

Understanding Problems Associated with the Loss of Synchronization

When synchronization is lost between the Outlook Inbox on a client PC running unified messaging client software and the VP system PC, you may experience the following problems:

- The count of new and/or saved messages voiced to the subscriber over the telephone when he/she logs into his/her mailbox does not match the actual count of new and/or saved messages displayed in the subscriber's unified messaging Outlook Inbox.
- There are "orphaned" e-mail messages on the VP system for a subscriber. These are messages that the subscriber can access and hear only by calling into his/her voice mailbox over the telephone and selecting to hear new and/or saved e-mail messages over the telephone. These orphaned e-mail messages do not display in the subscriber's unified messaging Outlook Inbox.

In most instances a subscriber loses synchronization due to two general reasons. To understand these reasons, be sure to review the following:

As explained earlier, when the unified messaging client PC's agent software is *not* running, the PEC periodically retrieves e-mails that come in for the subscriber directly from the e-mail server, copying the text of the e-mail to the VP system PC. This allows the subscriber to call into his/her voice mailbox and manipulate the status of the message over the telephone (change the message from new to saved, for example). The updated status of the message is communicated from the VP system PC to the client PC Outlook Inbox the next time the subscriber logs into his/her Outlook Inbox and the unified messaging client software agent is restarted for that Inbox. When the Outlook Inbox is restarted, these steps take place:

1. The e-mail server populates the Inbox with new e-mails that have arrived for the subscriber.
2. The agent updates the status of each of those e-mail messages with any status changes that were made by a subscriber who worked with those e-mail messages by calling into his/her voice mailbox from the telephone while the agent was inactive.
3. The agent populates the Outlook Inbox with any new voice mail messages stored for the subscriber on the VP system server.
4. The agent updates the status of any voice mail messages stored in the Outlook Inbox with any status changes that were made by a subscriber who worked with those voice messages by calling into his/her voice mailbox from the telephone while the agent was inactive.

Loss of Synchronization Reasons

- **A subscriber manipulated the status of his/her e-mail messages on the e-mail server by logging into the server using a means other than the unified messaging-enabled client PC Outlook Inbox—***This can include by accessing the e-mail server over the web, or through another non-unified messaging-enabled e-mail account.* Consider the following scenario: John shuts down his unified messaging-enabled client PC Inbox at his work. The agent is no longer running, and the VP system PC PEC is now retrieving e-mails that arrive for John and copying the e-mail text to the VP system PC. John accesses his e-mail account on the e-mail server from another PC—from home via the web, for example, and he deletes 3 e-mails. John comes back to the office and restarts his unified messaging-enabled Outlook Inbox on his client PC. Because the 3 e-mails John deleted from home are gone from the e-mail server, they do not display in his unified messaging-enabled Outlook Inbox. They do, however, still exist on the VP system PC, since the PEC copied them there while John's PC at the office was off. When John calls into his voice mailbox over the telephone, the message count for new and saved voice and e-mail messages includes counts for the 3 e-mail messages that were copied to the VP system PC by the PEC, but are not displayed in John's unified messaging-enabled Outlook Inbox. The only way these 3 "orphaned" messages can be deleted from the VP system PC is by having John call into his voice mailbox and delete each orphaned e-mail using the telephone keypad options.

Note:	If another individual is accessing a subscriber's e-mail messages on the e-mail server via the Delegation feature available in Outlook, the subscriber will have an orphaned e-mail message on the VP system PC for any message the other individual deleted from the subscriber's Inbox or moved from the Inbox into another folder.

- **A subscriber set up rules to automatically move new messages to folders other than the main Outlook Inbox**—Consider the scenario where John has a unified messaging-enabled Outlook Inbox that has been set up to use a rule to automatically send all new messages from ksmith@abc.com to a certain folder he set up in Outlook. John shuts down his unified messaging-enabled client PC Inbox. The agent is no longer running, and the VP system PC PEC is now retrieving e-mails that arrive for John and copying the e-mail text to the VP system PC.

While the PEC is running, it copies the text for 4 new messages that arrive from ksmith@abc.com to the VP system PC. John comes back to the office and restarts his unified messaging-enabled Outlook Inbox on his client PC. The first step in the four step cycle described above takes place.

The rule in John's Inbox immediately moves the ksmith@abc.com messages to the folder John set up. When it is the agent's turn to execute step 2 above, the agent only consults the Outlook Inbox (not any folders set up in Outlook). Because the agent cannot find the 4 messages from ksmith@abc.com in John's Outlook Inbox, it retains them on the VP system PC. When John calls into his voice mailbox over the telephone, the message count for new and saved voice and e-mail messages includes counts for the 4 e-mail messages from ksmith@abc.com that were copied to the VP system PC by the PEC, but are not displayed in John's unified messaging-enabled Outlook Inbox (since they have been moved automatically to a folder).

The only way these 4 "orphaned" messages can be deleted from the VP system PC is by having John call into his voice mailbox and delete each orphaned e-mail using the telephone keypad options.

Note:	Currently, the unified messaging feature supports synchronization of all e-mail messages that include a unique ID header.Also be advised that, as stated earlier, while the subscriber is logged into his/her client PC Outlook Inbox, the agent continuously maintains synchronization over the network between the Inbox and the mailbox for the subscriber on the VP system server PC. Note, however, that when the PEC is operating in place of the agent it is periodically polling the e-mail server to retrieve e-mail copies. By default, the PEC polls the e-mail server every 10 minutes. Because the polling takes place at intervals, a subscriber calling in to access e-mail messages over the telephone will not hear a message that was received on the e-mail server between the time of the last poll by the PEC and the subscriber's call into the voice mailbox.

23.4.3 INSTALLATION AND SETUP FOR UNIFIED MESSAGING

To implement unified messaging and e-mail reader capabilities, you must install and set up software on both the Interchange PC and on the client PC belonging to each subscriber who will be using these features. The method you use to install and set up unified messaging and e-mail reader capabilities **on the Interchange PC** differs, depending on whether you are setting up a system with or without pre-installed Interchange software.

Because the engineers strive continually to improve the efficiency and ease of installations, installation instructions change frequently. For the most up-to-date installation instructions for unified messaging and e-mail reader features, please refer to the Installation Notes provided in the inside front cover pocket of this manual. The Installation Notes are step-by-step instructions for installing your VP system. If Installation Notes are not located in the front cover pocket of this manual, contact technical support.

23.4.4 INSTALLING THE FEATURES

Materials Required for Installation

To perform the installation and setup you must have the materials listed below.

- VP system installation CD-ROM
- The static IP address assigned to the VP system PC
- The computer name assigned to the VP system PC
- NTRenew code (if listed on the system invoice)

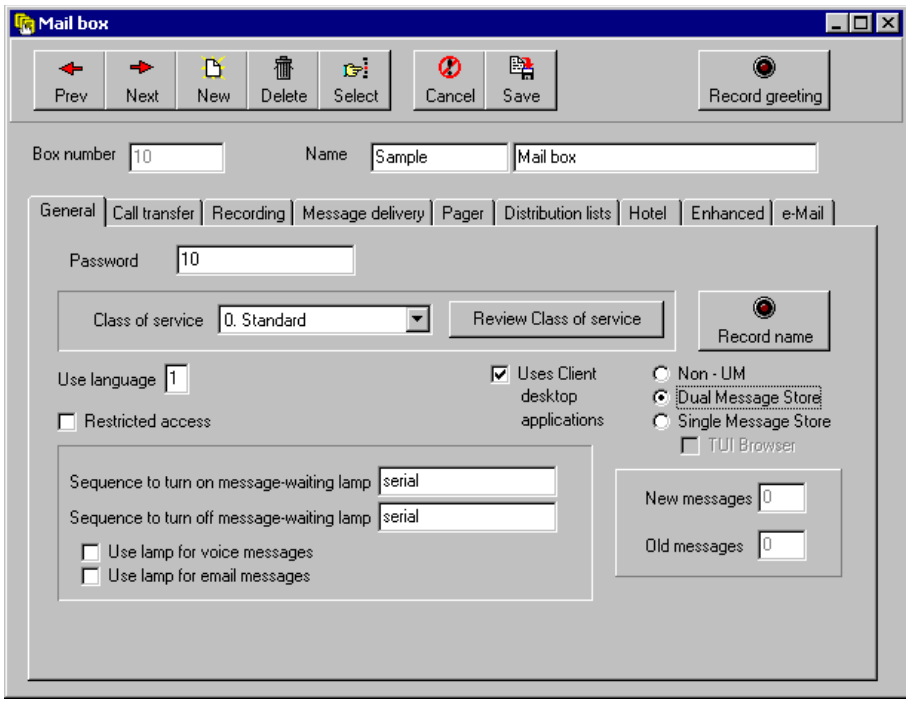
23.4.5 SETTING UP THE FEATURES

To set up this release with unified messaging and e-mail reader features on the VP system PC, you must adjust the MAILBOX SETUP screen belonging to each subscriber who will be using these features. Use the procedure detailed below.

To adjust each subscriber's Mailbox Setup screen:

1. Access the MAILBOX SETUP screen for each subscriber who will be using Single Message Store unified messaging. Select both the following options on the GENERAL tab:
   - USES DESKTOP CLIENT APPLICATIONS checkbox
   - DUAL MESSAGE STORE radio button

Note:	The Dual Message Store unified messaging feature is available as optional add-on features to the Windows-based VP system. Access to the Dual Message Store unified messaging feature is sold on a per-seat license. Though you can select the DUAL MESSAGE STORE radio button on as many subscriber MAILBOX SETUP screens as you like, if 25 seats were purchased, only 25 subscribers can have the unified messaging feature running with their desktop Inbox.

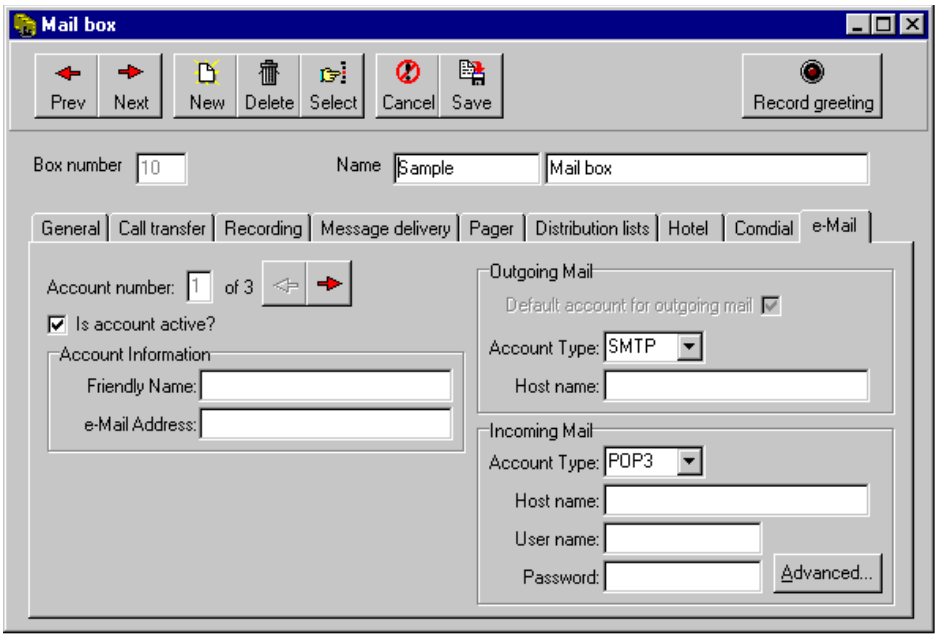


Mailbox Setup Screen General Tab

2. Next, select the E-MAIL tab of the MAILBOX SETUP screen. This tab must only be completed if both of the following conditions apply:

   - The subscriber de-activates his/her mailbox's agent software by either a) turning off his/her computer or b) selecting the specific option EXIT AND LOG OFF from the Microsoft Outlook File pull-down menu.
   - The subscriber wants to be able to listen to e-mail messages by logging into his/her voice mailbox over the telephone (because the subscriber is away from the office, for example)

The information on the E-MAIL tab of the MAILBOX SETUP allows the voice mail server's PEC service to log into the e-mail server on behalf of the client PC and copy messages to the voice mail server. With the PEC service running, subscribers can retrieve (via telephone) new e-mail messages they receive while the agent is not running on their desktop.



Mailbox Setup Screen E-mail Tab

On the E-MAIL tab of the MAILBOX SETUP screen, you enter information on up to 3 different e-mail accounts the subscriber uses. By completing this tab for each account, the VP system is able to retrieve e-mail when the Inbox agent software is not running. This way, the mailbox owner can call into his/her mailbox from the telephone to retrieve the e-mail he/she has received through each of the accounts defined—in addition to his/her phone mail messages.

Complete the fields on the E-MAIL tab using the field descriptions provided below:

Field: Account Number

If the mailbox owner has more than one e-mail account, you can set up information on the E-MAIL tab for up to 3 different accounts. Once you complete all fields on this screen for the first e-mail account, you can access a second and third e-mail tab on which you can enter information for additional accounts by clicking on the left and right arrow buttons next to the ACCOUNT NUMBER field.

Note:	The e-mail reader will not be able to voice e-mail over the telephone for any account that is not set up on the subscriber's desktop.

Field: Is Account Active

Un-check this box if an account for which you previously entered information is no longer an active account for the mailbox owner. The e-mail reader will no longer access and voice e-mails for that account.

Field: Account Information Area – Friendly Name

Indicate the name that is to display in the From field on messages recipients receive in their e-mail Inbox from this mailbox owner. Typically, the Friendly Name is simply the mailbox owner's first and last name.

Field: Account Information Area – E-Mail Address

Indicate the e-mail address to be used to send the subscriber's e-mail messages.

Field: Outgoing Mail Area – Default Account for Outgoing Mail

This field is active only if more than one E-MAIL tab is completed for the subscriber because he/she has multiple e-mail accounts. Check the field on the appropriate E-MAIL tab to indicate which account is to be used to send outgoing e-mail the subscriber sends.

Field: Outgoing Mail Area – Account Type

Select the Sendmail option in this field. (Sendmail sends messages via SMTP, but it is more reliable than the standard SMTP option.)

Field: Outgoing Mail Area – Host Name

Indicate the IP address assigned to the e-mail server that is to be used to send the subscriber's outgoing e-mail. If you selected the IMAP4 W/ ADMINISTRATOR ID option in the Incoming Mail Account Type field, the Host Name field will be populated with the IP address of the local host (VP system) and cannot be changed.

Field: Incoming Mail Area – Account Type

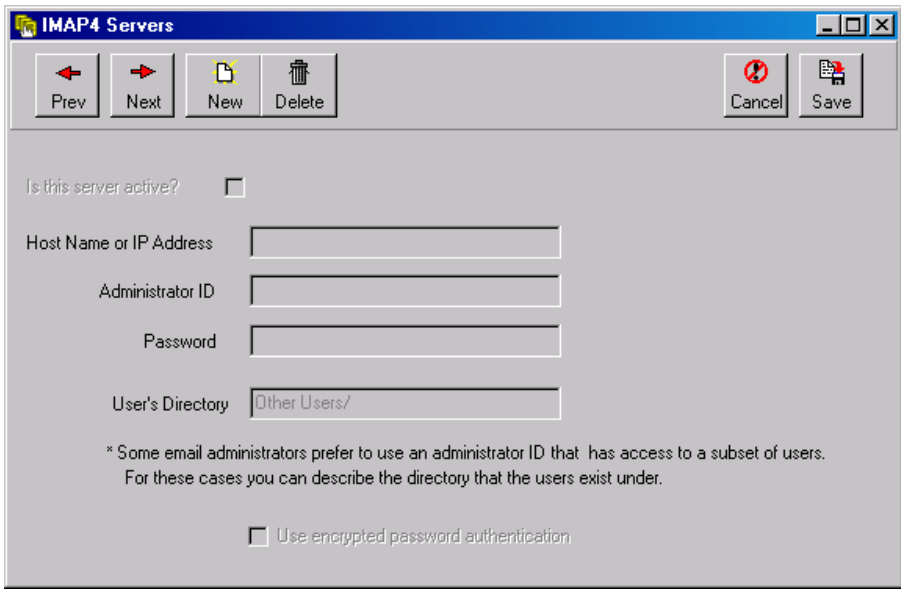
When a mailbox is set up to use Dual Message Store, the VP system communicates with e-mail servers via POP3 or IMAP4 technology. Once you make a selection here, in the fields below this field you will instruct the VP system how to log into the mailbox owner's e-mail account on the e-mail server. Although you can select POP3, IMAP4, or IMAP4 WITH ADMINISTRATOR ID from this drop down menu, IMAP4 WITH ADMINISTRATOR ID is recommended. (The regular IMAP4 option can be thought of as "IMAP4 WITH USER'S CREDENTIALS," in other words, the VP system logs into the e-mail server with the login name and password of the individual mailbox owner, which you specify below this field on this screen.

If you select POP3 or IMAP4 in this field, the Password field (see field description below)

must be updated manually each time a subscriber changes his or her e-mail login password.

If it is not updated, e-mails can no longer be retrieved for the subscriber.

To circumvent the issues associated with password changes, select IMAP4 W/ ADMINISTRATOR ID in this field and set up a user with Administrator login rights on the IMAP4 e-mail server. When the VP system logs into the e-mail server with Administrative rights, it can open any e-mail account on the server, regardless of an individual account owner's specified password. Note that to use the IMAP4 W/ ADMINISTRATOR ID option in this field, you must specify how the Administrator account is set up on the e-mail server. To do so, you complete the IMAP4 SERVERS screen shown below. This screen is located in the Database Administrator under the System pull-down menu.



- In the HOST NAME OR IP ADDRESS field, indicate the IP address or computer name of the e-mail server.
- In the ADMINISTRATOR ID field, indicate the name of the account assigned Administrator privileges.
- In the PASSWORD field, indicate the Administrator login password.

The USER'S DIRECTORY field should not adjusted unless necessary. This field is available for directory specifications in instances where IMAP4 directory traversal requires a match on this string. An Information Technology or VP system technical support professional should guide you in adjusting this field only if necessary.

You can set up multiple Administrator accounts and specify up to 32 of them on the IMAP4 SERVERS screen.

Field: Incoming Mail Area – Host Name

Indicate the IP address assigned to the e-mail server that receives the subscriber's incoming e-mail.

Field: Incoming Mail Area – User Name

Indicate the User Name the subscriber uses to log on to the e-mail server that receives the subscriber's incoming e-mail.

Field: Incoming Mail Area – Password

Indicate the password the subscriber uses to log on to the e-mail server that receives the subscriber's incoming e-mail.

> **Note:** If you select POP3 or IMAP4 in the INCOMING MAIL – ACCOUNT TYPE field, the subscriber should not change his/her e-mail login password from the password you enter in the Password field unless the Password field is manually updated to reflect the change. If it is not updated, the PEC can no longer retrieve e-mails for the subscriber.
>
> Be particularly aware of this in an Exchange Server environment, since any time subscribers change their *network* login password in this setting, they must inform their system administrator.
>
> This anomaly is not an issue if you select IMAP4 W/ ADMINISTRATOR ID OPTION in the INCOMING MAIL – ACCOUNT TYPE field. See the information on this field presented above.

3. Once you adjust the mailbox information for each subscriber who will be using unified messaging and e-mail reader features, click on the Save button to save your entries and exit the mailbox screen.

23.4.6 INSTALLATION AND SETUP ON A CLIENT PC

Note that you must complete procedures in this section on each client PC whose user will be working with unified messaging and e-mail reader features.

Understanding Client PC Requirements

- Unified messaging client software requires a client PC:
- That is running Windows NT workstation 4.0 with Service Pack 6A or Windows 98/2000/ME
- With at least 110 MB of free hard-disk space for installation
- With at least 50.4 MB of free hard-disk space (resident requirement)
- With at least 64 MB of available RAM

That uses one of the following e-mail client software packages—Exchange 5.5 with Service Pack 3 for Exchange, Outlook 98 or Outlook 2000 installed in Corporate or Workgroup mode. Unified messaging will not function with non-MAPI-compliant client e-mail packages such as Outlook Express or Outlook 98 or 2000 installed in Internet mode. It will not function with Outlook 2002 (XP).

Note:	For unified messaging to function properly, client PCs running Windows 2000 Professional Edition must have the latest service pack available for Windows 2000 Professional Edition. The minimum service pack level is 1.
Note:	If Internet Explorer is installed on the client PC, verify that it is not set up to run Outlook Express as the default e-mail client. Instead, it must specify Microsoft Outlook. (This applies to Dual Message Store unified messaging only.)

For on-screen fax viewing functionality, you must install the Imaging for Windows application on each client PC from the appropriate Microsoft Windows installation CD-ROM. (The Imaging for Windows program is available on Microsoft Windows 98/2000 and NT/ME software CD-ROMs and is often installed by default during Microsoft Windows installation.)

Additionally, to record voice mail messages through the Inbox interface, the PC must also be equipped with a sound card and microphone.

Understanding Voice Mail Addresses and How Messages are Sent from the Inbox (Non-Exchange Server Environments only)

The unified messaging feature allows a subscriber to compose, forward, and send a voice mail message using options available through the Inbox interface. This voice mail message is sent out from the Inbox one of two ways: As a straight voice mail message (sent to a voice mailbox of another subscriber on the system), or as an e-mail message that includes the voice mail message as a .WAV file attachment. When a voice mail message is sent as a straight voice mail message, the recipient can listen to it over the telephone by logging in to his/her voice mailbox (from on- or off-site) and selecting the option to listen to messages. If the recipient is also a unified messaging subscriber on the system, the recipient can also listen to the voice mail message by double clicking on it from the main Inbox screen.

When a voice mail message is sent as an e-mail message that includes the voice mail message as a .WAV file attachment, the recipient can access the voice mail only through the Inbox window. Because a message sent this way is not a voice mail message, the recipient cannot call into his/her voice mailbox over the telephone to access it (from outside the office, for example).

After composing a voice mail message, to send the message as a straight voice mail message, the subscriber must specify the To: field recipient from his/her Personal Address book. When unified messaging client software is installed, the Personal Address book on the client PC is populated with special addresses for the voice mailboxes of other subscribers on the system. These entries display showing each subscriber's name with the word **(VMAIL)** following it. If the message sender selects a voice mailbox address, the message is sent as a voice mail to the recipient.

If, when the subscriber addresses the message, he/she specify an address other than a voice mailbox address, the message is sent to the recipient as an e-mail with a .WAV file attachment.

The only exception to this rule occurs under circumstances where Microsoft Exchange is the e-mail server on the LAN. In this situation, if the message sending subscriber composes a voice mail message and addresses it to the recipient using the recipient's e-mail address, the VP system recognizes and delivers the message as a straight voice mail message (not an e-mail with an attached .WAV file) even though the message was addressed to an e-mail address.

Creating and Updating Voice Mail Addresses

To provide senders the option of selecting voice mailbox addresses, the client PC installation program sets up the voice mailbox addresses on each unified messaging client PC. To do so, it runs a utility (named Createvoicepab) that creates the voice mailbox addresses based on the mailboxes that are already set up on the VP system. Once compiled, the voice mailbox addresses are stored in the Personal Address Book accessible from the Inbox on each client PC. Voice mail addresses display in the Personal Address Book as the first and last name of each subscriber followed by **(VMAIL)** to designate the name as a voice mail address--for example **John Smith (VMAIL)**.

Note:	If it is not running already, start the Personal Address Book service on each client PC prior to installation of client software.

Because the Createvoicepab utility creates voice mailbox addresses based on the mailboxes currently set up on the VP system, the utility must be re-run periodically on each unified messaging desktop. By re-running the utility, you update VMAIL addresses to reflect addresses for new mailboxes that were added to the system and to eliminate addresses for mailboxes that were deleted. To update voice mail addresses on client PCs, refer to the following procedure:

To periodically update the voice mail addresses on a unified messaging client PC:

1. On the client PC, exit and log out of the client e-mail program.
2. Click on the Start button from the Windows desktop then select Programs / Voice Messaging / Download Voice Address Book. Follow the prompts to complete the procedure.

Note:	A voice mail address cannot be created for the owner of a mailbox unless the owner's first and last name are typed into the NAME fields on the MAILBOX SETUP screen.

Performing the Client PC Unified Messaging/E-mail Reader Installation

To install unified messaging and e-mail reader client software on a client PC:

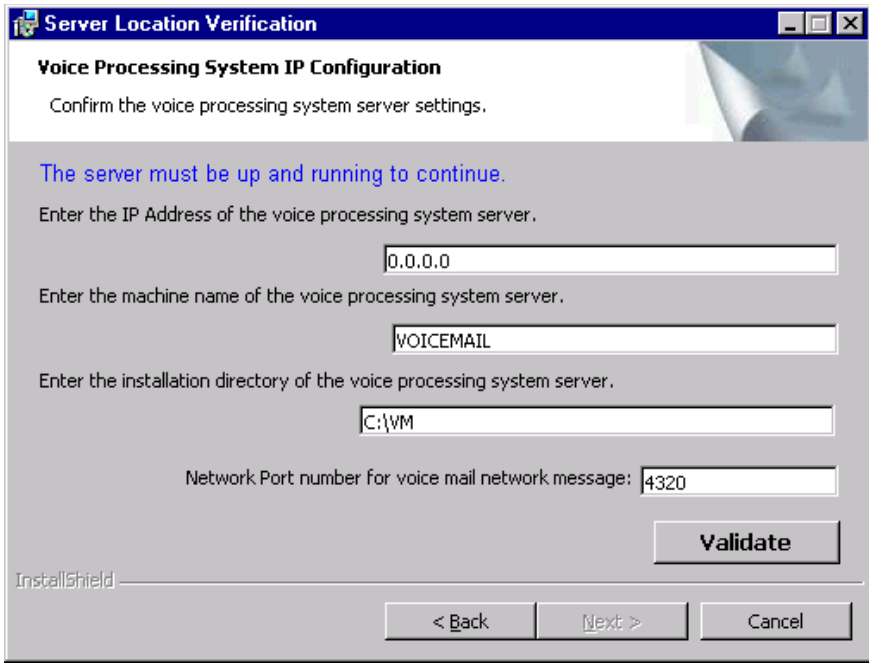
> **WARNING:**
> **All virus detection software must be disabled prior to installation.** You can re-enable detection software after the installation has been completed.
>
> **Note:** Be advised that before installing the client software, **if the e-mail server is *not* an Exchange server**, you must **start the Personal Address Book service on each client PC if it is not running already so that the client installation program can populate the Personal Address Book with VMAIL addresses (see explanation above)**. To start the Personal Address Book, from within Outlook, select the Tools option from the Services pull-down menu. Next, select the Add button and select the Personal Address Book.

1. The minimum Windows Internet Explorer software level for unified messaging client PCs is 4.01 Service Pack 2. If the Internet Explorer software level is not 4.01 SP 2 or above, the client installation will fail. Upgrade the Internet Explorer software as necessary prior to beginning the installation.
2. If the e-mail server is not an Exchange server, verify that the Personal Address Book service is running, as described in the note directly above.
3. Shut down the e-mail client software that is installed on the desktop and all applications running in the Task Bar.
4. Insert the Unified Messaging Client installation CD-ROM in the CD-ROM drive. From the Start button at the bottom of the Windows desktop, select Run, then in the Run dialogic box, select the CD-ROM drive in the LOOK IN field. Open the UM Client directory and double-click on the SETUP.EXE file. Click on OK.

> **Note:** We strongly recommend that you accept all default installation entries. Doing so will facilitate any system support efforts that may be necessary.

5. Follow the on-screen prompts and **Remove** the previously installed unified messaging and e-mail reader client software from the computer, then double-click on the SETUP.EXE file to start installing the new version.
6. Follow the on-screen prompts to progress through the installation and reboot when instructed. Accept default entries on all screens whenever possible. **Note the following important program screens:**
   - On the SERVER LOCATION VERIFICATION screen, enter the IP address and name of the VP system and press the Validate button. If the entries are correct, the Next button will become active. Press it to continue.

> **Note:** The entries on this screen must be validated before the upgrade can continue.


Server Location Verification
Voice Processing System IP Configuration
Confirm the voice processing system server settings.
The server must be up and running to continue.
Enter the IP Address of the voice processing system server.
0.0.0.0
Enter the machine name of the voice processing system server.
VOICEMAIL
Enter the installation directory of the voice processing system server.
C:\VM
Network Port number for voice mail network message:
4320
Validate
InstallShield
< Back
Next >
Cancel

- On the CUSTOM SETUP screen, select the client components you want to install on the client PC. By default, Unified Messaging Client is selected for installation. To install other CTI client features, click on the drop down arrow next to the feature and select to install the feature to the local drive.

  If you choose to install Call Control, the application will be placed in the Startup folder and will start automatically each time the subscriber logs in. After the installation process is complete and you reboot the computer and log in, the Call Control Log In screen will display and the PC desktop will be updated to include a Call Control program icon in the lower right corner of the PC screen task bar. If you do not want Call Control to start automatically each time you log in, simply remove it from the Startup folder. The program icon will remain on the task bar and you can open Call Control by right clicking on the icon and choosing Open.

- On the InstallShield Wizard Completed screen, note the instruction to download your Voice Address Book. This step is necessary only if certain setups configurations. To determine if it is necessary on this client PC, consult the information provided under the heading, "22.3.6 Installing and Setting up Dual Message Store Unified Messaging and E-mail Reader Features on a Client PC" earlier in this section.

To set up unified messaging and e-mail reader client software on a client PC:

1. From the Windows 98/2000 or Windows NT/ME desktop, right click on the Microsoft Outlook icon and select Properties. The Properties screen displays.
2. From the Services tab, click on the Add button and select UNIFIED MESSAGING then click on OK. Click on the SERVER ACCOUNT tab.
3. In the IP address field enter the static IP address of the VP system PC.
4. In the MAILBOX NUMBER field and MAILBOX PASSWORD field enter the number of the subscriber voice mailbox to be associated with this Inbox and voice mailbox's log in password.
5. Under Connection Parameter, verify CONTINUOUS NETWORK CONNECTION is selected. Also confirm the OPTION AUTOMATIC SILENT RE-CONNECT AFTER A DISCONNECTION is selected.

6. Select the Synchronization tab. If this subscriber will be using e-mail reader features, select the option to replicate and synchronize e-mail messages. If you select this option, the agent software will copy e-mail message text to the VP system PC. See the section **"Understanding the Agent and the Relationship Between the Client PC Outlook Inbox and the VP System PC,"** earlier in this document, for more information on the agent functionality.
7. To save the entries and exit the configuration screens, click on OK.

WARNING:

If the client PC is running Windows 98, verify the entries you make in the MAILBOX NUMBER and MAILBOX PASSWORD fields are retained when you exit then re-enter the Properties screen. If these entries are not retained, you must create a new MAPI profile for the subscriber. Do so by completing the following procedure:

1. From the Windows desktop, right click on the Microsoft Outlook icon and select Properties.
2. From the Services tab, click on the SHOW PROFILES button. Highlight the profile for the subscriber, and click on the COPY button.
3. Indicate a new profile name for the profile copy, then select the OK button.
4. In the WHEN STARTING MICROSOFT OUTLOOK USE THIS PROFILE field, select the copy you created.
5. From the Windows desktop, right click on the Microsoft Outlook icon and select Properties.
6. From the Services tab, in the Services area, click on the VOICE MAIL SERVER option, then click on the Remove button.
7. Click on the Add button.
8. Highlight UNIFIED MESSAGING option, then click on the OK button.
9. On the Server Account tab, re-complete the first 3 fields and make any other modifications to this screen that you made previously (see procedure above).
10. Click on the OK button. Restart Microsoft Outlook as prompted.

Note: Troubleshooting the Creation of Voice Mail Addresses

If a unified messaging subscriber cannot successfully use options in the Inbox to compose and send a straight voice mail message to another subscriber on the system:

From the main Inbox screen, click on the Tools menu / Address Book. From the screen that displays, click on the Tools menu. From the ADDRESSING screen, click on the ADDRESSING tab. Verify that PERSONAL ADDRESS BOOK displays in the field: WHEN SENDING MAIL, CHECK NAMES USING THESE ADDRESS LISTS IN THE FOLLOWING ORDER. If it does not, click on the Add button and select PERSONAL ADDRESS BOOK from the list that displays and click on the Add button to add it. To save and exit the dialog, click on the Close button.

23.4.7 EMAIL READER ENHANCEMENTS

Beginning with software release 11.0, service pack 1, several enhancements have been added to the Email Reader feature. Unique voice characteristics can be assigned to the text-to-speech interface (TTS) to provide language, speech rate, pitch, and volume to the email reader.

This is accomplished through the creation of a *Language.CFG* file, located in the C:\VM\P directory. The following table provides a listing of the available settings.

Language	Voice (choose one)	Volume(1-9)	Pitch (1-9)	Speech Rate(1-9)
American English (Default)	Michelle, Michael, Peter (default), Sidney, Eager Eddie, Deep Douglas, Buff, Grandpa Amos, Melvin, Alex, Wanda, Julia	1=Soft	1=Allow	1=Slow
Dutch	Karen, Hans			
German	Anna, Stefan			
Mexican Spanish	Pedro, Jorge, Ricardo, Paco, Luis, Ezequil, Rogelio, Carlos, Josefa, Isabel			
Spanish	Carmen, Julio	9=Loud	9=High	9=Fast

1. To modify the TTS voice, create the *Language.Cfg* file using Notepad or a similar text editor. Entries in this file are:
   - **Language=<language>**, where <language> is any language in the preceding table.
   - **TTSVoice=<voice>**, where <voice> is a voice name from the table.
   - **TTSVolume=<volume>**, where <volume> is a value between 1 and 9 inclusive. A small number is softer and a large number is louder.
   - **TTSPitch=<pitch>**, where <pitch> is a value between 1 and 9 inclusive. A small number is a lower frequency and a large number is a higher frequency.
   - **TTSspeechrate=<speechrate>**, where <speechrate> is a value between 1 and 9 inclusive. A small number is slower and a large number is faster.
2. Save the file as C:\VM\P\Language.Cfg. Exit the text editor.

23.4.8 USING THE FEATURES

When you install unified messaging and e-mail reader client software on a client PC, an online help file is installed to provide users with information on working with unified messaging and e-mail reader features. Subscribers can access this help file from within the Outlook program on a client PC desktop by selecting Unified Messaging Help from the Help pull-down menu in Outlook.

Please also be advised of the following client software considerations:

- Unified messaging subscribers should not launch and use the VCM program at the same time their Inbox is running (even in minimized mode) on their desktops.
- If a unified messaging subscriber wants to log on to his/her Exchange Server Inbox from more than one PC, unified messaging client software should be installed on only one of the PCs. For roaming profile-based users, two separate MAPI profiles are needed: One MAPI profile that includes the Voice Mail Service (set up to connect to the user's voice mailbox) and one profile

that does not include the Voice Mail Service. The subscriber must also be prompted upon log on to specify which profile he/she wants to use (this is an Outlook option). If the subscriber attempts to log on to two (or more) PCs using, on both, a profile that includes the Voice Mail Service set up to connect to the same voice mailbox, the second log on will fail.

- A subscriber cannot use unified messaging features:
  - When accessing someone else's Inbox using the "Delegate" Exchange Server feature
  - When accessing his/her Inbox via either the LAN while at the office or via a RAS connection while out of the office from a PC *not* installed with unified messaging client software

23.4.9 TROUBLESHOOTING DUAL MESSAGE STORE

Symptom and Problem	Areas to Check / Possible Solutions
Symptom: The client PC does not receive voice mails in the Outlook Inbox. **Symptom:** An agent icon (shown below) does not display in the Task Manager toolbar on the client PC **Symptom:** The agent icon on the client PC Task Manager toolbar has a red **X** through it. **Problem:** Agent software has not been properly installed and/or configured on the client PC.	1. Was all anti-virus software disabled before the installation of unified messaging client software? If not, disable all anti-virus software and re-install the unified messaging client software on the client PC. (After unified messaging client software is installed, anti-virus software can be re-activated on the client PC.) 2. Is the Internet Explorer Mail option set to something other than Microsoft Outlook? To verify, right-click on the Internet Explorer icon, then select Properties / Options / Programs. Verify the Mail option is set to Microsoft Outlook (not Outlook Express or another option). 3. Did the installing technician install Unified Messaging Client software on the client PC? After Client software installation, did the technician correctly set up the options under the Microsoft Outlook icon / Properties / Services on the client PC? Be sure to complete necessary steps and verify the entries you made using the instructions provided under the heading **Performing the Client PC Unified Messaging/E-mail Reader Installation** in either chapter 22 of the VP system *Installation and Maintenance Manual* or in the unified messaging upgrade documentation you received. 4. Verify the following entries display in the VP system PC's \VM\VM.CFG file: Export path=C:\VM VCMName=TCPIP UMName=TCP,4320,127.0.0.1 5. Is the client PC running Microsoft Outlook 98 or 2000 installed in Corporate or Workgroup mode? Unified messaging client software will not run on PCs running Outlook Express or Outlook installed in Internet mode. 6. Is the client PC running the Windows 98 operating system? If so, verify the entries you make in the MAILBOX NUMBER and MAILBOX PASSWORD fields are retained when you exit then re-enter the Voice Mail Service Configuration screen (accessible from Outlook on the client PC under the Tools / Services / Voice Mail Service / Properties option). If these entries are not retained, you must create a new MAPI profile for the subscriber. For instructions, see the last WARNING box under the heading **Performing the Client PC Unified Messaging/E-mail Reader Installation** in either chapter 22 of the VP system *Installation and Maintenance Manual* or in the unified messaging upgrade documentation you received.

Symptom and Problem	Areas to Check / Possible Solutions
Symptom: When the Outlook Inbox is not running on the client PC, a subscriber who logs into his/her voice mailbox over the telephone cannot hear a count of e-mail messages and cannot access e-mails that are in the Inbox. **Problem:** The PEC Service is not able to log into the e-mail server on the client PC's behalf (when Outlook is not running). **Symptom:** The VMStart.log file contains an error indicating that the FTP Service could not initiate. **Problem:** The FTP service could not start on the VP system PC. This service is required for proper communication between client PCs and the VP system PC.	1. After Client software installation, did the technician correctly set up the options under the Microsoft Outlook icon / Properties / Services on the client PC. Specifically, check the Synchronization tab that displays when you select Voice Mail Server service, then select the Properties button. Did the technician select the option to Replicate E-mail? 2. Did the subscriber change his/her e-mail server login password? If so, confirm that the VP system administrator updated the password field on the E-mail tab of the subscriber's Mailbox setup screen to reflect the updated password. 3. Is other information on the E-mail tab of the subscriber's Mailbox setup screen entered correctly? Specifically, confirm that the Host field for Incoming and Outgoing mail reflect the IP address of the e-mail server(s), not the computer name as specified in earlier versions of VP system documentation. For instructions on completing all fields on the E-mail tab, refer to information under the heading **Setting up Unified Messaging and E-mail Reader Features on the VP System PC** in either chapter 22 of the VP system *Installation and Maintenance Manual* or in the unified messaging upgrade documentation you received. 4. Was the static IP address assigned to the VP system PC changed since the unified messaging client installation? If so, you must update the address specified in the VP system PC's \VM\VM.CFG file and under the Microsoft Outlook icon / Properties / Services on each unified messaging client PC.

23.5 Implementing Single Message Store Unified Messaging

Single Message Store unified messaging allows subscribers to access and manage their voice mail messages, including those with fax attachments, alongside their e-mail messages—all in one place, an e-mail Inbox. This way, in addition to viewing and sending e-mail messages, unified messaging subscribers can listen to and work with voice mail messages and view and manipulate fax messages, all from their PC desktop Inbox.

The section **Understanding the Single Message Store Mailbox**, presented earlier in section 22.2, details how Single Message Store unified messaging functions. Refer to this topic for details on Single Message Store feature functionality, capabilities, and limitations.

23.5.1 UNDERSTANDING THE REQUIREMENTS

LAN Requirements for Unified Messaging and E-mail Reader

The unified messaging and e-mail reader features function on any local area network (LAN) running the TCP/IP protocol. LANs that can run this protocol include Windows 98/2000, Windows NT/ME, and Novell LANs. For information on setting up TCP/IP protocol, contact a LAN administrator.

E-mail Server Requirements for Single Message Store Unified Messaging

The network bandwidth, e-mail server hardware, and network connection between the e-mail server and the VP system PC must be robust due to the additional volume of network traffic between the e-mail server and the VP system PC. Because VP system services for Single Message Store functionality are dependent upon e-mail server functionality, problems that appear to be related to the VP system may in fact be related to e-mail server efficiency (such as poor network connection, inadequate processor speed, etc.).

In addition, the e-mail server must have sufficient hard drive capacity to handle the storage of voice and fax mail messages from the VP system. For reference, consider that a 1-minute voice mail message requires approximately 480k of storage space.

23.5.2 SETTING UP THE FEATURES

To set up Single Message Store unified messaging for a mailbox, you must perform the following steps. Use the procedures detailed in this section to complete these general steps.

1. Set up an account with Administrator privileges on the network server for the VP system PC and connect the VP system PC to the network.
2. Assign a static IP address to the VP system PC and set up one or more DNS server addresses. The DNS server addresses are necessary for the VP system to send voice and fax mail messages as e-mail to the IMAP4 e-mail server.
3. Adjust the MAILBOX SETUP screen belonging to each subscriber who will be using these features.

To assign IP and DNS server addresses on Windows NT-based VP systems:

1. From the VP system desktop, right click on Network Neighborhood and select Properties.
2. From the NETWORK screen, select the PROTOCOLS tab.
3. Highlight TCP/IP Protocol and select the Properties button.
4. On the MICROSOFT TCP/IP PROPERTIES screen, enter the appropriate information in the IP Address and Subnet Mask fields. Be advised that you must assign a static IP address for the VP system PC.
5. Select the DNS tab, and under DNS Service Search Order, click on the Add button.
6. In the TCP/IP DNS SERVER box, enter the DNS server address and select Add. Repeat this step to enter additional DNS server addresses.
7. Select OK to exit the MICROSOFT TCP/IP PROPERTIES screen and OK again to exit the NETWORK screen.

To assign IP and DNS server addresses on Windows 2000-based VP systems:

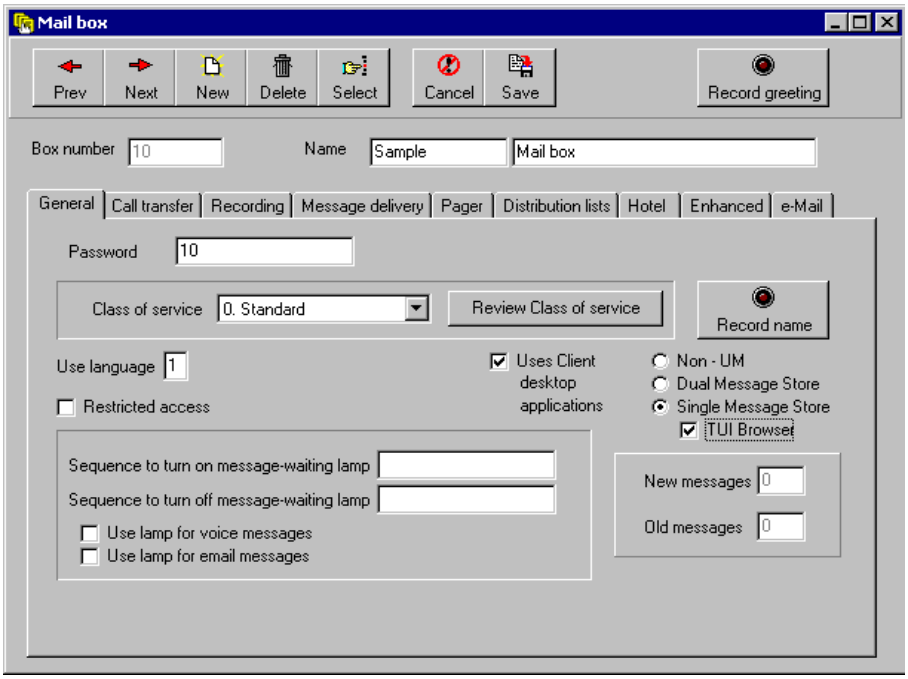
1. From the VP system desktop, right click on My Network Places and select Properties.

2. From the NETWORK AND DIAL-UP CONNECTIONS screen, right click on Local Area Connection icon and select Properties.
3. Highlight Internet Protocol (TCP/IP) and select the Properties button.
4. On the General tab, enter the appropriate information in the IP Address and Subnet Mask fields. Be advised that you must assign a static IP address for the VP system PC.
5. Next, select the Use the Following DNS Server Address radio button and enter your DNS server address in the Preferred field. You may also enter an alternate DNS server address in the Alternate field.
6. Select OK to exit the INTERNET PROTOCOL (TCP/IP) PROPERTIES screen and OK again to exit the LOCAL AREA CONNECTION PROPERTIES screen.

To adjust each subscriber's Mailbox Setup screen:

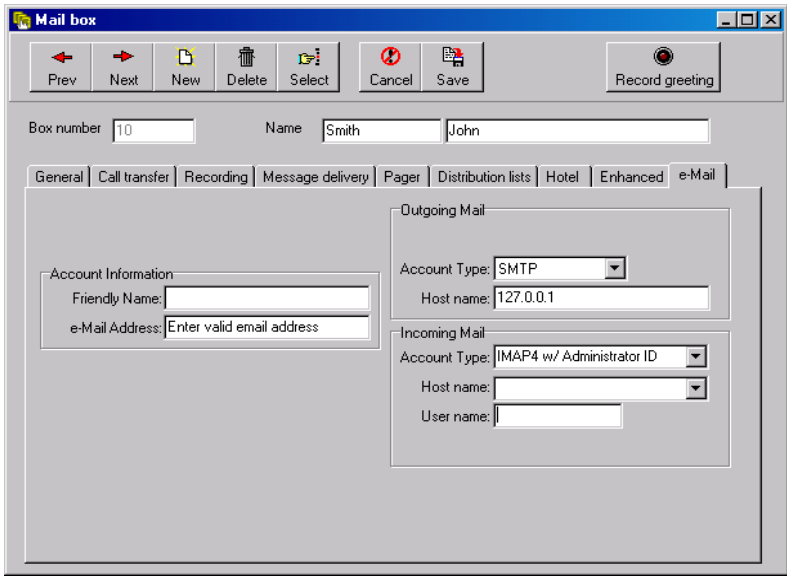
1. Access the MAILBOX SETUP screen for each subscriber who will be using Single Message Store unified messaging. Select both the following options on the GENERAL tab:
   - USES DESKTOP CLIENT APPLICATIONS checkbox
   - SINGLE MESSAGE STORE MESSAGE STORE radio button

Note:	The Single Message Store unified messaging feature is not sold on a per seat license and is available to all subscribers on the Windows-based VP system. Note, however, that with version 10.4, the ability to access voice, fax, and e-mail messages (which reside on the e-mail server) by logging into a voice mailbox from any phone will be available on a per seat license. In version 10.4, you will need to indicate on each MAILBOX SETUP screen, which Single Message Store subscribers are to have telephone access to voice, fax, and e-mail messages.



Mailbox Setup Screen General Tab

2. If the subscriber will need TUI access to Single Message Store, select the TUI BROWSER checkbox. If you do not select TUI BROWSER, refer to section 22.2 for important information on modifying the AUTOMATICALLY DELETE OLD/NEW MESSAGES AFTER [BLANK] DAYS field in the class of service.
3. For Mailboxes with the TUI Browser option enabled, clear all message waiting indicator fields on the General tab of the Mailbox screen.
4. Next, select the E-MAIL tab of the MAILBOX SETUP screen. This tab must be completed for all Single Message Store unified messaging mailboxes.



Single Message Store Mailbox Setup Screen, E-mail Tab

On the E-MAIL tab of the MAILBOX SETUP screen, you enter information on the e-mail account the subscriber uses. By completing this tab for each Single Message Store unified messaging mailbox, the VP system is able to place voice mail and fax mail messages into this account. This way, the subscriber can retrieve voice and fax mail messages along with e-mail messages from the Inbox application.

Complete the fields on the E-MAIL tab using the field descriptions provided below:

Field: Account Information Area – Friendly Name

Indicate the name that is to display in the Inbox's To field on voice and fax mail messages sent to the Inbox from the VP system PC. Typically, the Friendly Name is simply the mailbox owner's first and last name.

Field: Account Information Area – E-Mail Address

Indicate the SMTP e-mail address to which the VP system is to send voice and fax mail messages.

Field: Outgoing Mail Area – Account Type

Select SMTP in this field. (Do not select SendMail unless advised by technical support personnel.)

Field: Outgoing Mail Area – Host Name

Indicate the IP address assigned to the e-mail server that is to be used to send the subscriber's outgoing e-mail. If you selected the IMAP4 W/ ADMINISTRATOR ID option in the Incoming Mail Account Type field, the Host Name field will be populated with the IP address of the local host (VP system) and cannot be changed.

Field: Incoming Mail Area – Account Type

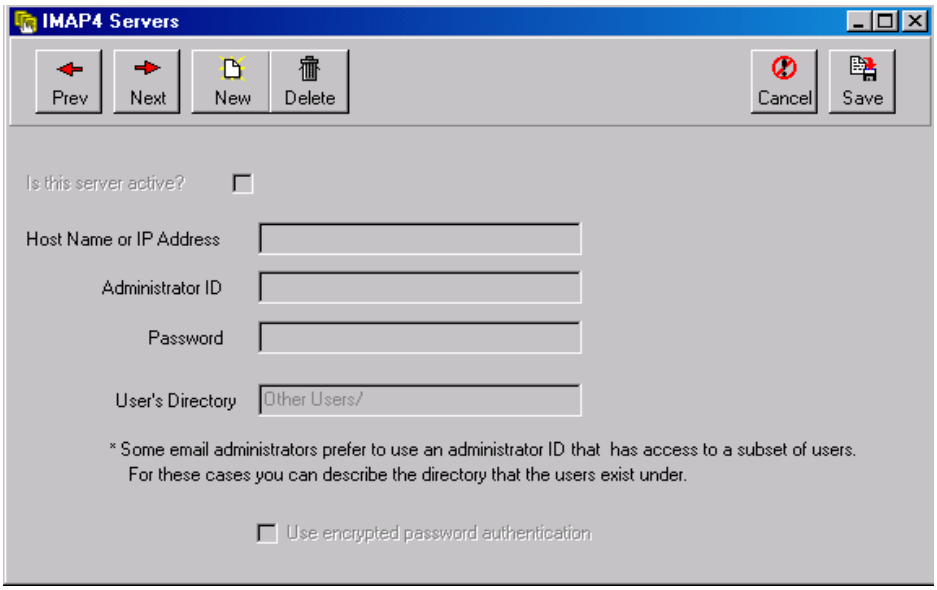
When a mailbox is set up to use Single Message Store, the VP system communicates with e-mail servers via POP3 or IMAP4 technology. When TUI Browser is enabled, the VP system must use IMAP4 technology. Once you make a selection here, in the fields below this field you will instruct the VP system how to log into the mailbox owner's e-mail account on the e-mail server. Although you can select POP3, IMAP4, or IMAP4 WITH ADMINISTRATOR ID from this drop down menu, IMAP4 WITH ADMINISTRATOR ID is recommended. (The regular IMAP4 option can be thought of as "IMAP4 WITH USER'S CREDENTIALS," in other words, the VP system logs into the e-mail server with the login name and password of the individual mailbox owner, which you specify below this field on this screen.

If you select POP3 or IMAP4 in this field, the Password field (see field description below)

must be updated manually each time a subscriber changes his or her e-mail login password.

If it is not updated, e-mails can no longer be retrieved for the subscriber.

To circumvent the issues associated with password changes, select IMAP4 W/ ADMINISTRATOR ID in this field and set up a user with Administrator login rights on the IMAP4 e-mail server. When the VP system logs into the e-mail server with Administrative rights, it can open any e-mail account on the server, regardless of an individual account owner's specified password. Note that to use the IMAP4 W/ ADMINISTRATOR ID option in this field, you must specify how the Administrator account is set up on the e-mail server. To do so, you complete the IMAP4 SERVERS screen shown below. This screen is located in the Database Administrator under the System pull-down menu.



- In the HOST NAME OR IP ADDRESS field, indicate the IP address or computer name of the e-mail server.
- In the ADMINISTRATOR ID field, indicate the name of the account assigned Administrator privileges.
- In the PASSWORD field, indicate the Administrator login password.
- The USER'S DIRECTORY field should not adjusted unless necessary. This field is available for directory specifications in instances where IMAP4 directory traversal requires a match on this string. An Information Technology or VP system technical support professional should guide you in adjusting this field only if necessary.

You can set up multiple Administrator accounts and specify up to 32 of them on the IMAP4 SERVERS screen.

Field: Incoming Mail Area – Host Name

Indicate the IP address assigned to the e-mail server that receives the subscriber's incoming e-mail.

Field: Incoming Mail Area – User Name

Indicate the User Name the subscriber uses to log on to the e-mail server that receives the subscriber's incoming e-mail.

Field: Incoming Mail Area – Password

Indicate the password the subscriber uses to log on to the e-mail server that receives the subscriber's incoming e-mail. (This field will display only if you've selected POP3 or IMAP4 in the Account Type field.)

Note:	If you select POP3 or IMAP4 in the INCOMING MAIL – ACCOUNT TYPE field, the subscriber should not change his/her e-mail login password from the password you enter in the Password field unless the Password field is manually updated to reflect the change. If it is not updated, e-mails can no longer be retrieved for the subscriber. Be particularly aware of this in an Exchange Server environment, since any time subscribers change their *network* login password in this setting, they must inform their system administrator. This anomaly is not an issue if you select IMAP4 W/ ADMINISTRATOR ID OPTION in the INCOMING MAIL – ACCOUNT TYPE field. See the information on this field presented above.

Once you adjust the mailbox information for each subscriber who will be using unified messaging features, click on the Save button to save your entries and exit the MAILBOX screen.

23.5.3 SETTING UP SINGLE MESSAGE STORE WITH TUI BROWSER

To ensure full and proper functionality for Single Message Store with TUI Browser, in addition to setting up the mailboxes on the VP system PC you must complete these steps:

1. For any Mailbox that was previously set up as Dual Message Store and is now set up as Single Message Store with TUI Browser, you must remove the Unified Messaging service from the Outlook Services on the subscriber's desktop.

   To remove the Unified Messaging service, from the Outlook Inbox, select Tools / Services. On the Services screen, highlight the Unified Messaging service and select the Remove button.

2. Create these mailboxes on the e-mail server for non-deliverable messages and notify the e-mail server's system administrator that these boxes should be set up to delete messages periodically:
   - postmaster
   - non-mail-user
3. If Rich Text Format is enabled for the mailbox on the e-mail server, disable it.
4. In the VP system's Database Administrator program, on the Message Options tab of the General Information screen, set the field Single Message Store Audio Format to GSM 6.10. This field indicates the format in which voice mail messages for Single Message Store TUI Browser feature users are stored on the e-mail server. The format GSM 6.10 is a compressed file format that consumes approximately 75% less storage space than messages stored in the standard PC M format. The compressed format also utilizes less network bandwidth than a standard PCM file, improving overall performance, and therefore is the recommended format.
5. From the VP system PC desktop, click on the Services icon or select the Services option from Control Panel/Administrative Tools. From the SERVICES screen, right click on the PROXY E-MAIL CLIENT service and select PROPERTIES.
   - Click on the LOG ON tab.
   - Select LOG ON THIS ACCOUNT and click Browse.
   - In SELECT USER, highlight one of the displayed users who has domain administrative rights, then click OK.
   - Complete the PASSWORD and CONFIRM PASSWORD boxes with the user's password. Click on Apply, then OK.
   - Repeat step 5 to this point and in place of PROXY E-MAIL CLIENT select each of the following services in turn:

     ∗KVT Email Delivery

     ∗KVT Navigator

     ∗KVT SendMail Service

   - Close the Services screen. Restart the VP system PC.
6. To test the ability of the VP system to deposit e-mail to and retrieve it from e-mail servers you specify on the E-mail tab of Single Message Store mailbox owner's Mailbox setup screens, run the following tests:
   - Open a command prompt window. From the command prompt, type:

`Testsmpt (EMAIL_IP_ADDRESS) (SMS_USER_EMAIL_ADDRESS)` then press <Enter>

where *(EMAIL_IP_ADDRESS)* is the IP address of the e-mail server specified in the Outgoing Mail area of the E-mail tab of a Single Message Store mailbox owner's Mailbox setup screen.

and *(SMS_USER_EMAIL_ADDRESS)* is the e-mail address of that mailbox owner specified on his/her E-mail tab under the Account Information area, for example jsmith@abc.com.

Monitor the command prompt window for any messages indicating an unsuccessful connection or connection failure. If you receive any type of error messages indicating an unsuccessful connection attempt, the network administrator must make network configuration adjustments to ensure port 25 on the e-mail server is open for the VP system to use.

- Next, from the command prompt, type:
  `Testsmpt (EMAIL_IP_ADDRESS) (NETWORK_LOGIN_NAME) (LOGIN_PASS)`
  then press <Enter>

  where *(EMAIL_IP_ADDRESS)* is the IP address of the e-mail server specified in the Outgoing Mail area of the E-mail tab of a Single Message Store mailbox owner's Mailbox setup screen.

  and *(NETWORK_LOGIN_NAME)* is that mailbox owner's e e-mail server login name, as specified in the Incoming Mail area of the E-mail tab.

  and *(LOGIN_PASS)* is either the mailbox owner's e-mail server login password, as specified in the Incoming Mail area of the E-mail tab, or the password specified on the IMAP 4 Servers screen, if the IMAP4 W/ ADMINISTRATOR ID option is selected in the Incoming Mail Account Type field on the mailbox owner's E-mail tab.

Again, monitor the command prompt window for any messages indicating an unsuccessful connection or connection failure. If you receive any type of error messages indicating an unsuccessful connection attempt, the network administrator must make network configuration adjustments to ensure port 143 on the e-mail server is open for the VP system to use.

23.5.4 INSTALLING THE INBOX VOICE MESSENGER MODULE

the Inbox Voice Messenger (IVM) module is available for use with VP system mailboxes set up with the Single Message Store Unified Messaging feature. The IVM module lets Single Message Store mailbox owners using Microsoft Outlook compose, send, play back, and forward voice mail messages from the PC desktop. Recordings are made through a desktop microphone.

Inbox Voice Messenger works on client PCs running Microsoft Outlook on one of the following operating systems:

- Windows 98, 2000, ME

- Windows NT running Service Pack version 6A or higher of Internet Explorer 4.02 or higher

> **NOTE:** VP system release 10.4 and 11.0 **support the Single Message Store unified messaging** feature **on Windows XP client PCs running Outlook 2002** (whether or not the IVM module installed). Release 10.4 does not support the Dual Message Store unified messaging configuration Windows XP client PCs running Outlook 2002

- Windows XP running Outlook 98, 2000, or 2002 (XP)

.

To install Inbox Voice Messenger (IVM):

1. Close Microsoft Outlook if it is currently running on the desktop.
2. Turn off any virus detection software programs that are currently running on the PC. You can re-start the programs after you install the Inbox Voice Messenger module.

The IVM module installation SETUP.EXE file is provided on the VP system PC running version 10.4 in the subdirectory C:\VM\Client\IVM Client. It is also provided on the Version 10.4 VP System Server Software CD-ROM in the directory \Inbox Voice Messenger. From the client PC where you want to install IVM, locate the SETUP.EXE file for IVM in one of these locations.

Double-click on the SETUP.EXE file to begin the installation.

Follow the prompts to progress through the installation screens.

23.5.5 TROUBLESHOOTING SINGLE MESSAGE STORE WITH TUI BROWSER

Symptom and Problem	Areas to Check / Possible Solutions
Symptom: When trying to access the Inbox via the telephone, the subscriber hears the prompt: "I'm sorry, but I am unable to access your messages at this time. Please try again later." **Problem:** The VP system cannot communicate with the IMAP4 e-mail server or the user's credentials are not set up properly on the Mailbox setup screen.	This symptom indicates either a single point of failure or a problem with the user's credentials. The single point of failure could be a problem with, or the temporary unavailability of: • The connection between the VP system and the IMAP4 e-mail server • The e-mail server itself • A proxy server • A router • The network To troubleshoot this symptom, follow these steps: 1. From the VP system, verify that the e-mail server is up and listening at the IMAP port. If the e-mail server is functioning properly, this indicates that the issue is a configuration problem. 2. Check the user's credentials on the E-mail tab of the Mailbox setup screen. **Note:** If the user's credentials are correct in the Database Administrator, make sure that no restriction exists on the network. For example, some businesses restrict access to the e-mail server during certain hours or lock out users when an incorrect password has been attempted a specified number of times.
Symptom: When trying to access the Inbox via the telephone, the subscriber hears the prompt: "There are currently no e-mail readers available. Please try again later." **Problem:** A text-to-speech port is not available because all are in use.	Wait and try again. **Note:** The repeated receipt of this message may indicate the need for more text-to-speech licenses. Contact your VP system sales representative.

Symptom and Problem	Areas to Check / Possible Solutions
Symptom: Beeping sounds when a subscriber begins listening to messages via the telephone or during message playback. **Problem:** Either the audio streaming is being received too slowly for the VP system to begin to play back the message, or one of the systems associated with the VP system is busy.	When one of the external components necessary for Single Message Store functionality is busy, the VP system sends an indication to alert the subscriber. That indication is silence followed by a soft beep every 2 to 3 seconds. If any of the following components are busy, the VP system will signal the subscriber: • The e-mail server • The network • The proxy server When a subscriber logs in to listen to messages by telephone and receives silence followed by a soft beep every 2 to 3 seconds, this indicates that the streaming of audio is coming too slowly for the VP system to accumulate enough data to begin playing the message. If the subscriber is already listening to messages when the beeping begins, it indicates that one of the above components is busy and the VP system is waiting on data. **Note:** Repeated beeping during message retrieval or message playback may necessitate an upgrade to components involved in network connectivity, the e-mail server processor and/or the VP system processor.
Symptom: When listening to messages via the telephone, the subscriber hears one of these prompts: “This message contains an incompatible wave file” or “This message contains an unknown format.” **Problem:** The audio file attachment is not in a supported format (8K 8bit muLAW or 8K 8bit Linear .WAV file) or is in an unknown format.	Voice mail messages are repackaged as e-mail messages with .WAV file attachments before being sent to the IMAP4 e-mail server. When a subscriber attempts to access voice mail through the telephone, the VP system attempts to open and play all e-mails with .WAV file attachments. If the VP system attempts to open a .WAV file in a format that it does not support, or if the VP system attempts to open an attachment in an unknown format, the subscriber will hear a prompt indicating that the file cannot be played. To access a .WAV file in an unsupported format or to access a file in an unknown format, the subscriber must open the file through the desktop Inbox.

Symptom and Problem	Areas to Check / Possible Solutions
Symptom: A subscriber is not receiving messages in the Inbox, though the messages that are currently stored there function properly. **Problem:** The e-mail server has a limit on the size of incoming files or on the storage capacity of the Inbox.	Check with the e-mail provider's system administrator.
Symptom: Messages are being received without any attachments. **Problem:** Rich text format has been enabled.	Remove Rich Text Format from the Protocols tab in the Exchange mailbox.
Symptom: Voice mail messages are being counted as e-mail messages. **Problem:** Rich text format has been enabled.	Remove Rich Text Format from the Protocols tab in the Exchange mailbox.

23.6 Implementing Call Control and Voice Mailbox Administration

Call Control and Voice Mailbox Administration are applications available with Windows-based VP systems. These applications provide users with convenient call handling and voice mailbox administration features. With Call Control, users can track incoming calls, select queued calls, direct calls to other extensions, and reply to missed calls. With Voice Mailbox Administration, users can play and record greetings and messages, set up personal distribution lists and message delivery numbers and schedules, and perform other tasks from their Windows 98/2000 or Windows NT/ME PC desktops in addition to their telephones.

Call Control and Voice Mailbox Administration require the purchase of VCM or unified messaging licenses. For each seat of VCM or unified messaging purchased, a user can have access to Call Control and Voice Mailbox Administration.

Note: Please note the following Call Control requirements:

1. Call Control and VCM cannot be open on the desktop at the same time. Since VCM provides its own call control functionality, it should not be necessary to run both VCM and Call Control at the same time.
2. For Call Control to queue calls:
   The Maximum Number of Lines Allowed to Hold for this Mailbox field must be set to at least 1 in the Mailbox class of service.
   Call Forward Busy must be disabled in the phone system.

23.6.1 SETTING UP SUBSCRIBER WORKSTATIONS

Call Control and Voice Mailbox Administration client software requires a PC that is running Windows 98/2000 or Windows NT/ME. The PC must have at least 501 KB of free hard disk space for the installation of Call Control files and at least 401 KB of free hard disk space for the installation of Voice Mailbox Administration files—as well as approximately 5 MB or more for the recording and playback

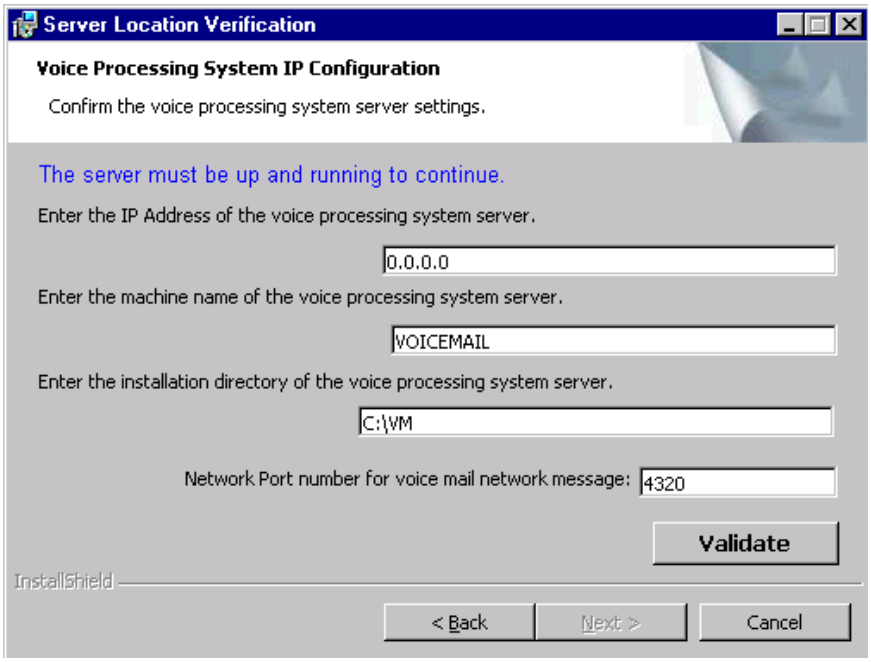
of messages and greetings. If the subscriber's PC is equipped with a microphone, sound card, and speakers, the subscriber can use the PC's multimedia features for recording and playing greetings. If the PC does not include this equipment, the subscriber must call in to the mailbox using the telephone handset for these operations.

To install Call Control and Voice Mailbox Administration client software on a subscriber PC using the VP system installation CD ROM:

Note:	You can install Call Control and Mailbox Administration features from the VP system server CD ROM or from the Unified Messaging client CD ROM detailed earlier in this section. The steps below detail the procedure for installing the features from the VP system server CD ROM.

1. Insert the VP server system installation CD ROM in the CD ROM drive on the subscriber's PC.
2. Select the Start button from the Windows 98/2000 or Windows NT/ME desktop, then select Run. The Run dialog box displays.
3. In the OPEN field, type or browse to D:\CALL CONTROL MAILBOX ADMINISTRATION\SETUP.EXE (where D: is the letter of the CD ROM drive).
4. Follow the on-screen prompts to progress through the installation and reboot when instructed. Accept default entries on all screens whenever possible. **Note the following important program screens:**
5. On the SETUP TYPE screen:
   - Select Complete button to install both Call Control and Voice Mailbox Administration.
   - Select Custom to install only Call Control or only Voice Mailbox Administration and then select Next. On the CUSTOM SETUP screen that displays, right click on icon of the program you do not want to install and select the option not to install it.
6. On the SERVER LOCATION VERIFICATION screen (if it displays), enter the IP address and name of the VP system and press the Validate button. If the entries are correct, the Next button will become active. Press it to continue.

Note:	The entries on this screen must be validated before the upgrade can continue.


Server Location Verification
Voice Processing System IP Configuration
Confirm the voice processing system server settings.
The server must be up and running to continue.
Enter the IP Address of the voice processing system server.
0.0.0.0
Enter the machine name of the voice processing system server.
VOICEMAIL
Enter the installation directory of the voice processing system server.
C:\VM
Network Port number for voice mail network message:
4320
Validate
InstallShield
< Back
Next >
Cancel

Note:	Call Control can be installed independently, but it will not have full functionality. For Call Control to have full functionality, Voice Mailbox Administration must be installed on the same PC.

The Call Control application will be placed in the Startup folder and will start automatically each time you log in. After the installation process is complete and you reboot the computer and log in, the Call Control Log In screen will display and the PC desktop will be updated to include a Call Control program icon in the lower right corner of the PC screen task bar. If you do not want Call Control to start automatically each time you log in, simply remove it from the Startup folder. The program icon will remain on the task bar and you can open Call Control by right clicking on the icon and choosing Open.

To start either program manually after installation, from the Start button, go to Programs / Voice Messaging and select the appropriate application.

Note:	A subscriber cannot use Call Control or Voice Mailbox Administration unless the USES CLIENT DESKTOP APPLICATIONS field is activated on his/her MAILBOX screen.

23.6.2 ADJUSTING SUBSCRIBER MAILBOXES

Before a subscriber can use Call Control or Voice Mailbox Administration, the USES CLIENT DESKTOP APPLICATIONS field on the subscriber's MAILBOX screen must be checked. Use the procedure detailed below.

To adjust a subscriber's mailbox to permit Call Control and Voice Mailbox Administration access:

1. From the Windows desktop of the VP system PC, double-click the DATABASE ADMINISTRATOR icon. You are prompted to enter a password.

2. Type **1234** then press <Enter> to log on using the default Technician level password.
3. Access the BOXES pull-down menu.
4. Select MAIL BOX from the Boxes menu. Use the Select button to access the MAILBOX screen for the subscriber to be permitted Call Control and Voice Mailbox Administration access.
5. Move the cursor to the USES CLIENT DESKTOP APPLICATIONS field on the General tab. Check the box by clicking on it or by pressing the Spacebar.
6. Use the Select button to modify additional subscriber mailboxes as necessary.
7. Press <F10> to save the changes or click on the Save icon on the screen. You return to the main screen.

BE ADVISED:

For a client PC to be able to communicate with the VP system PC, the following two lines must be present in the client PC's registry after the line LastAdapter=0:

DestRemFtpIP=*VMSERVIP*
DestVmIp=*VMSERVIP* (where *VMSERVIP* is the IP address of the VP system PC)
InstallDir=C:\VCM(on workstations running NT workstation or NT server software and workstations running Windows 2000. C is the hard drive of the client PC)

These entries are made automatically when VCM client software is installed on the VP system PC. **If, however, you intend to operate VCM over a WAN or you encounter problems with VCM, you should ensure both the above entries are present in the registry and that they reflect the correct IP address of the VP system PC.**

You can edit these entries in the PC's registry by clicking on the Start button at the bottom-left of the PC screen, selecting Run, then typing `REGEDIT` and pressing <Enter>. Next, select HKEY_CURRENT_USER \ SOFTWARE \ KEYVOICE \ VCM \ 2.

23.6.3 USING CALL CONTROL AND VOICE MAILBOX ADMINISTRATION

Call Control and Voice Mailbox Administration have been designed with an intuitive user interface that allows users to move easily through the programs and use the programs' options and features. Extensive online help is also available to assist new users with understanding each program's functionality. To access online help for Voice Mailbox Administration, use the options provided on the Help pull-down menu. Online help for Call Control can be downloaded from Dealer Support area of http://www.KeyVoice.com.

23.7 Implementing Web-based PCM Module Components

Starting with release 11.0 of Windows-based VP systems, mailbox owners can use the web-based Personal Administration tool to access mailbox setup and configuration options across the Internet using a browser. These options include greetings (activation, recording), personal distribution lists, message/pager notification, schedules, general settings (voice mailbox password, message waiting light activation), and transfer options (including find-me-follow-me).

Also starting with release 11.0, system administrators can use the web-based System Administration tool to access the Database Administrator application across the Internet using a browser.

23.7.1 SETTING UP WEB-BASED TOOLS ON THE INTERCHANGE

To use System Administration and/or Personal Administration web-based tools, the VP system PC must be installed as part of the network and be assigned a static IP address. You also must install a program on the VP system PC that is on a separate CD ROM labeled PCM and is provided with the system.

To install PCM software on the VP system:

1. Insert the CD ROM labeled PCM in the CD ROM in the CD ROM drive on the subscriber's PC.
   .
2. Select the Start button from the Windows 2000 desktop, then select Run. The Run dialog box displays.
3. In the OPEN field, type or browse to D:\ SETUP.EXE (where D: is the letter of the CD ROM drive).
4. Follow the on screen prompts to complete the installation.

To access System Administration and/or Personal Administration Tools from another PC:

1. Open an Internet browser on the desktop of the PC.
2. Type the static IP address of the VP system PC in the Address field of the browser window.
3. From the screen that displays, select to use the System Administration tool or the Personal Administration tool.

24. INSTALLING OPTIONAL MODULES

If the original VP turnkey system purchase included optional program modules, those modules were installed on the system before it was shipped to you. If you purchase a VP kit system or if optional modules are purchased after the original system, you must install the modules using the instructions provided in this section. These instructions identify how you install the following VP system optional modules:

- Fax Distribution and FaxMail
- Talking Classifieds
- IVR
- Outbound Telemarketing

If an optional module was not specifically purchased, you cannot activate it on the system. If more than one optional module is purchased, you must activate each individually.

Note:	For instructions on installing and using unified messaging, e-mail reader, and VCM features, refer to section 22.

24.1 Activating Modules and Installing Module Prompts

Note:	When you install an optional module, you may be prompted to indicate the module's switches.txt authorization code number. This code is indicated on the system invoice and/or on a small card packaged with the system's software key.

To activate optional modules on DOS-based Systems:

Obtain a switches.txt authorization code number from the system invoice or from a technical support or sales representative.

Enter the switches.txt code by following the instructions in section 2.4.3 of this installation manual.

For instructions on using each optional module, refer to sections 24-28.

To install optional modules and optional module prompts on Windows-based Systems:

Note:	If you installed a Windows-based VP system kit using procedures in section 21, any optional modules you purchased were activated when you completed the installation program screens. You do not need to take additional steps to install or activate optional modules and optional module prompts unless additional modules are purchased later.

On Windows-based systems, access to optional modules is controlled by either an NTRenew code, which activates the module on the software key attached to the back of the PC. For information on entering an NTRenew code refer to section 2.4.

On Windows-based systems, you do not need to install additional prompts for optional modules. These prompts are installed when the VP system software is installed.

For instructions on using each optional module, refer to sections 24-28. For instructions on installing and setting up the VCM or unified messaging feature, refer to section 22.

24.2 Installing Hardware/Software Required for Fax Modules

Information in this section is designed to help you install and configure hardware and software required to use fax features available with the Fax Distribution and FaxMail optional modules.

The VP system can support up to 4 single-line fax boards. The following types of fax boards are supported:

DOS-based systems: PureData Satisfaxion 200 / 400 and 2000 / 4000 boards

Windows-based systems: GammaLink 2 and 4 port boards

Use the instructions provided below to connect the fax boards to the telephone lines and to install the fax board and software in the VP system with which you are working.

Note:	The procedures in this section assume that the diskette drive on the VP system is drive A and the hard drive is drive C. If the system uses other drive letter designations, substitute the appropriate letters in the procedures provided.

24.2.1 CONNECTING THE TELEPHONE LINES TO THE FAX BOARDS

Each fax board is actually connected in parallel (bridged) with one of the VP system's voice board lines. Use the adapter arrangement shown in the following illustrations.

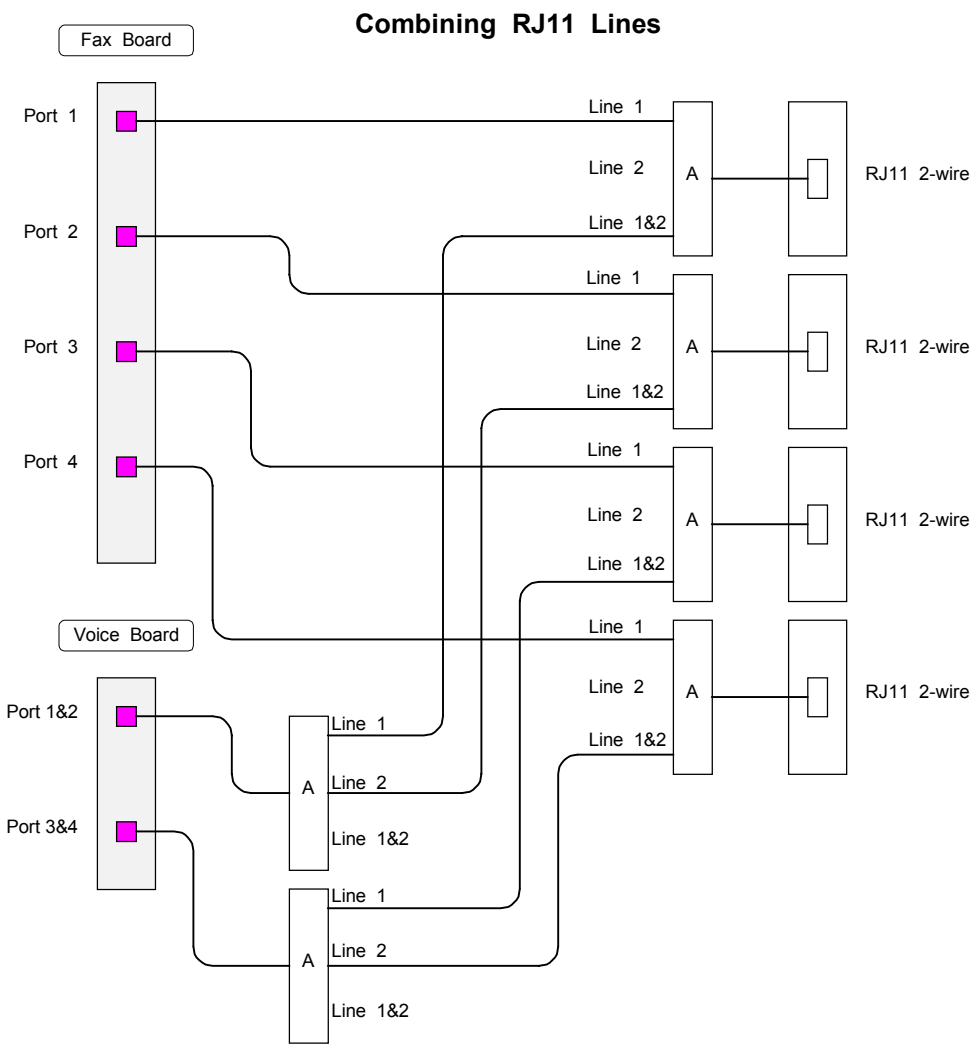


Figure 23-1 Connecting Telephone Lines to the Fax Boards (Combining RJ11 Lines)

Note: Adapter A accepts either a 2-wire (1 pair) or 4-wire (2 pair) input. In the usage above, the inputs to the adapters on the right side of the illustration are 2-wire (1 pair) RJ11. The usage for those adapters splits the 1 pair input into two identical feeds, one feed for the fax board and the other for the voice board adapters.

The voice board's adapters usage on the left side of the illustration combines the two single pair inputs into one 4-wire (2 pair) feed to the RJ14 voice ports.

Adapter A can be purchased at Radio Shack, stock number 279-402.

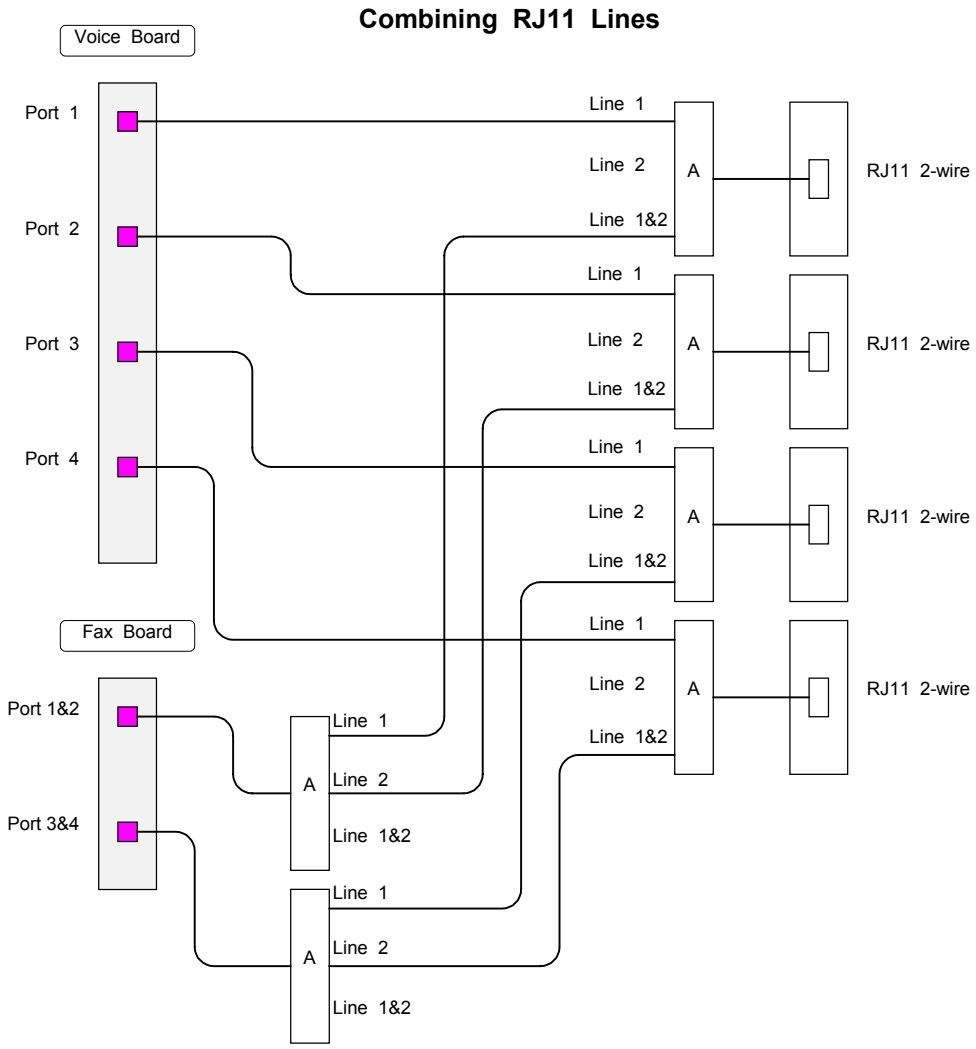


Figure 23-2 Connecting Telephone Lines to the Fax Boards (Combining RJ11 Lines)

Note: Adapter A accepts either a 2-wire (1 pair) or 4-wire (2 pair) input. In the usage above, the inputs to the adapters on the right side of the illustration are 2-wire (1 pair) RJ11. The usage for those adapters splits the 1-pair input into two identical feeds, one feed for the voice board and the other for the fax board adapters.

The fax board's adapters usage on the left side of the illustration combines the two single pair inputs into one 4-wire (2 pair) feed to the RJ14 fax ports.

Adapter A can be purchased at Radio Shack, stock number 279-402.

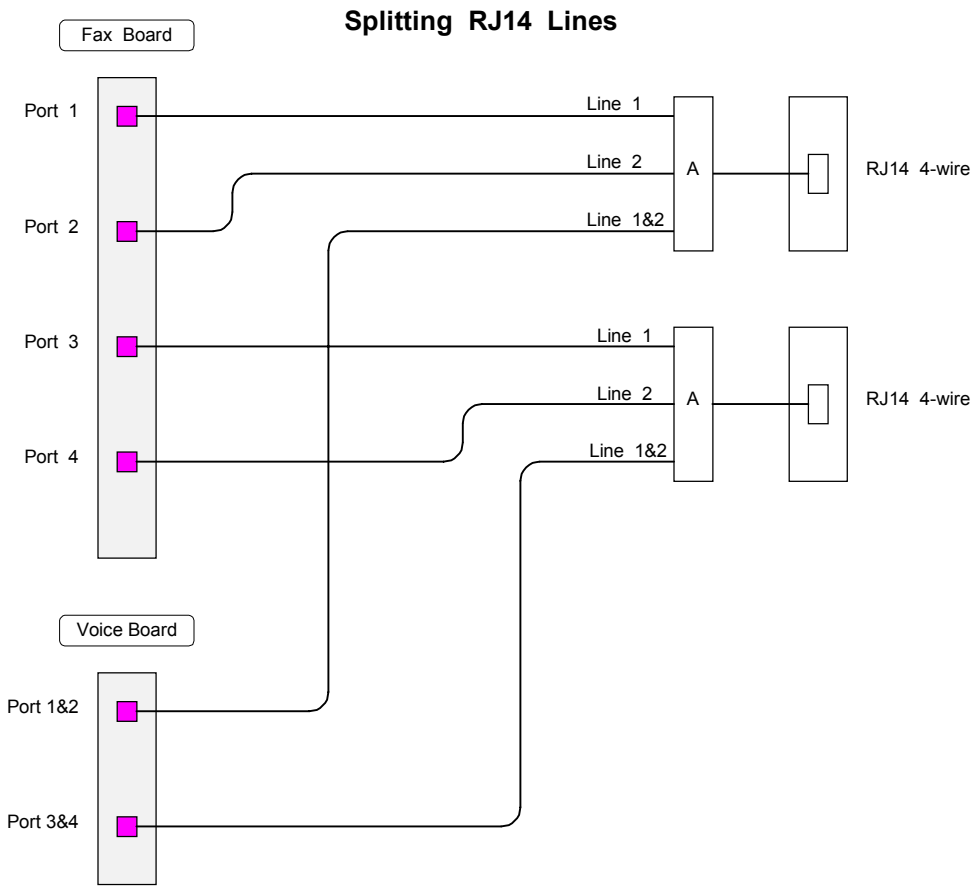


Figure 23-3 Connecting Telephone Lines to the Fax Boards (Splitting RJ14 Lines)

Note:	Adapter A accepts either a 2-wire (1 pair) or 4-wire (2 pair) input. In the usage above, the input is a 4-wire (2 pair) RJ14. The outputs are as illustrated: Line 1 (the first pair), Line 2 (the second pair), and Lines 1&2 (both pairs). Adapter A can be purchased at Radio Shack, stock number 279-402

24.2.2 INSTALLING SATISFAXION FAX BOARDS

To install each fax board:

1. Shut down the VP system and turn off power to the PC.
2. Remove the PC's cover.
3. Insert the board in a slot in the PC. Refer to installation instructions provided with the board.
4. Turn on power to the PC.
5. Refer to the instructions later in this section to install the board software and configure the board.

6. If you are installing multiple fax boards, repeat the steps 3-5 for each fax board you are installing.

> **Note** Each board must be configured individually. Only after all boards are configured with the Satisfaxion software can you insert all boards into the PC.

Replace the cover of the PC.

24.2.3 INSTALLING SATISFAXION SOFTWARE AND CONFIGURING EACH BOARD

To install the Satisfaxion software and configure each board:

> **Note:** This Satisfaxion board software installation procedure assumes you are using PureData's 5-diskette installation pack. If the installation pack you are using does not include 5 diskettes, contact Technical Support for instructions.
>
> You should not need to adjust the I/O addresses on the boards. The Satisfaxion installation and configuration program determines how the addresses are to be set.

1. Insert the Satisfaxion diskette labeled Support Disk 1 into the diskette drive.
2. From a DOS prompt type `A:INSTALL` then press <Enter>.
3. To continue, press <Enter>.
4. At the prompt, confirm the default directory by pressing <Enter>.
5. At the prompt regarding Windows support, leave the field blank (no Windows) and press <Enter>.
6. As prompted, insert each Support Disk (2-5).

> **Note:** At the end of the installation of the fax software you may see the error:
> `"Error loading CONFIG.OVL: Path or file name not found"`
>
> Once the error displays, verify the last installation diskette is still inserted in the diskette drive, and type `A:LOAD` (where A is the diskette drive letter) then press <Enter>.
>
> The file CONFIG.OVL is copied to the PC and the Setup program identified in the following step starts automatically. Continue with step 8 below to complete the setup.

7. When prompted, press any key to run the Setup program.
8. From the menu that displays, select NEW DEVICE.
9. At the prompt, indicate the type of fax board installed in the VP system by selecting either:

Satisfaxion 428/500/2k/4k

Satisfaxion 200/400

The program indicates the I/O address it will be using for the board.

10. Select ADVANCED SETTINGS.
11. Set the field SEND RETRY ATTEMPTS to **0** then select OK.
12. To save the changes and edit the setup program, select OK then press <Enter>.
13. To continue, press any key.
14. Restart the computer. Continue with the following procedure for making necessary file modifications. If you are installing multiple boards, you can make these modifications once, after the last board has been configured using this procedure.

To make necessary file modifications for Satisfaxion boards:

1. Shut down the VP system if it is running.
2. Change to the directory in which the VP system is installed (by default, the \VM directory).
3. Using a text editor, access the VM.CFG file. If you are using the DOS editor for example, type `EDIT VM.CFG` then press <Enter>.
4. If you are installing either Satisfaxion 2000 or 4000 boards, add the following lines to the VM.CFG file:

```
FAX LINK=CD
SAME CALL FAX OK
```

5. If you want to share fax ports on the system (regardless of which type of fax board you are using) add the following line to the VM.CFG file (see information later in this section for additional details on sharing fax ports):

```
SHARE FAX PORTS
```

> Note: If you are using a Comdial phone system, add the line above as `SHARE FAX PORTS=BLIND`

6. Save and exit the file.
7. Using a text editor, access the VERBATIM.BAT file. If you are using the DOS editor for example, type `EDIT VERBATIM.BAT` then press <Enter>.
8. If the system is using Rhetorex voice boards and Satisfaxion 2000 or 4000 boards, add the following lines immediately before the line that begins RHETDRV:

```
CD\INSTCOM
I3LOAD
CD\VM
```

9. If the system is using Dialogic voice boards and Satisfaxion 2000 or 4000 boards, add the following lines immediately before the line that begins VMAIL:

```
CD\INSTCOM
I3LOAD
CD\VM
```

10. If you are converting from older Satisfaxion drivers or are upgrading from a Satisfaxion 200 or 400 board:
    - Remove the lines in the AUTOEXEC.BAT file that call CASMGR.

- Remove the lines in the CONFIG.SYS file that invoke the SATISFAX driver.

11. If the VP system is being installed to use a phone system that does not use dial tone (such as a Comdial switch), you must modify the I3LOAD.INI file in the sub-directory C:\INSTCOM. Using a text editor, access the I3LOAD.INI file. If you are using the DOS editor for example, from the C:\INSTCOM directory prompt, type `EDIT I3LOAD.INI` then press <Enter>. After each of the lines that read DEVICE_MULTIPLEX_NUMBER, add the following line (with no blank line after it):

DIAL_PROGRESS_MODE = NONE

12. Restart the computer.

24.2.4 INSTALLING GAMMALINK FAX BOARDS

To install each fax board:

1. Shut down the VP system and turn off power to the PC.
2. Remove the PC's cover.
3. Select a different I/O address for each fax board. If you are installing only one board in the system, the default settings of switch SW1 on the board should not need to be modified. Refer to the table below.

CPI100 Boards, Dip Switch SW1, 7&8 'ON'

TABLE 10.

Switch SW1-						
1	2	3	4	5	Physical Channel	I/O Address
Off	Off	Off	Off	Off	0 (default)	350-353
On	Off	Off	Off	Off	1	360-363
Off	On	Off	Off	Off	2	370-373
On	On	Off	Off	Off	3	250-253

CPI200 Boards, Dip Switch SW1

TABLE 11.

Switch SW1-						
1	2	3	Channel A	A Physical Address	Channel B	B Physical Address
Off	Off	Off	350h-353h	0	360h-363h	1
On	Off	Off	260h-263h	4	270h-273h	5
Off	On	Off	100h-103h	8	104h-107h	9
On	On	Off	110h-113h	12	114h-117h	13
Off	Off	On	280h-283h	16	284h-287h	17
On	Off	On	290h-293h	20	294h-297h	21
Off	On	On	120h-123h	24	124h-127h	25
On	On	Off	130h-133h	28	134h-137h	29

CPI4 Boards, Rotary Switch SW1

TABLE 12.

I/O Addresses (Physical Channels)				
Switch Setting	Channel A	Channel B	Channel C	Channel D
0	350h-353h (0)	360h-363h (1)	370h-373h (2)	250h-253h (3)
1	260h-263h (4)	270h-273h (5)	150h-153h (6)	160h-163h (7)
2	100h-103h (8)	104h-107h (9)	108h-10Bh (10)	10Ch-10Fh (11)
3	110h-113h (12)	114h-117h (13)	118h-11Bh (14)	11Ch-11Fh (15)
4	280h-283h (16)	284h-287h (17)	288h-28Bh (18)	28Ch-28Fh (19)
5	290h-293h (20)	294h-297h (21)	298h-29Bh (22)	29Ch-29Fh (23)
6	120h-123h (24)	124h-127h (25)	128h-12Bh (26)	12Ch-12Fh (27)
7	130h-133h (28)	134h-137h (29)	138h-13Bh (30)	13Ch-13Fh (31)

4. Label each board using an indelible marker on the metal retaining bracket with the board's I/O address from the appropriate table above. (This facilitates any support for the board you may need later.)
5. Insert each board in a slot in the PC. Refer to installation instructions provided with the board.
6. Turn on power to the PC.
7. Refer to the instructions later in this section to install the board software and configure the boards.

8. Replace the cover of the PC.

24.2.5 INSTALLING GAMMALINK SOFTWARE AND CONFIGURING EACH BOARD

Note:	If you are installing GammaLink software on a VP system connected to a Comdial phone system, there are specific GammaLink parameter adjustments you must make after the installation. Refer to the phone system technical bulletin for details.

To install the GammaLink software and configure each board on Windows-based Systems:

Note:	If you installed a Windows-based VP system kit using procedures in section 21, you installed GammaLink software and configured each fax board when you completed GammaLink installation program screens. You do not need to take additional steps to install or configure GammaLink software or boards unless you add GammaLink boards to the system later. Use this procedure only to re-run the GammaLink installation and configuration portion of the VP system installation so you can set up boards you added.

1. Shut down the VP system if it is running. For complete procedures, refer to section 2.5.
2. From the Start button at the bottom of the Windows desktop, select Run. In the Run dialog box, select Browse. In the LOOK IN field, select the CD-ROM drive. Open the SERVERVPS folder and click on the SETUP.EXE file. Click on OK.
3. On the WELCOME screen, select Next.
4. On the LICENSE AGREEMENT screen, select Yes.
5. If you are installing GammaLink software on a Windows NT machine, the next screen will be the DIRECTORY LOCATIONS screen. Select Next. This screen will not appear on Windows 2000.
6. If you are installing GammaLink software on a Windows NT machine, on the SELECT SETUP TYPE screen, select VOICE PROCESSING COMPONENT INSTALL and select Next. If you are installing GammaLink software on a Windows 2000 machine, select GAMMAFAX and skip to step 8 of these instructions.
7. On the SELECT COMPONENTS screen, select GAMMAFAX and then Next.
8. On the SELECT PROGRAM FOLDER screen, select Next.
9. The system begins backing up files, and a progress bar indicates the status. When the backup completes, select OK.
10. On the Dialogic drivers QUESTION screen, select No.
11. On the GAMMALINK FAX SOFTWARE FOR WINDOWS NT screen Warning box, select OK.
12. On the GAMMALINK FAX SOFTWARE FOR WINDOWS NT Welcome screen, select Next.
13. On the LICENSE AGREEMENT screen, select Yes.
14. On the SELECT TYPE screen, verify that Typical is selected, then click on the Next button. A progress bar displays as the software installs.

15. On the GAMMALINK COUNTRY ASSIGNMENT screen, highlight the board found from the Board Type list displayed and click on the Change Country button. Highlight the country in which the VP system is being installed, then click on the OK button. To continue, click on the Next button.
16. On the online registration Question box, select No.
17. On the GAMMALINK FAX SOFTWARE FOR WINDOWS NT SETUP COMPLETE screen, select Finish.
18. On the SETUP COMPLETE screen, verify that the Yes option is selected to restart the system, then click on the Finish button.
19. The PC reboots and the VP system restarts automatically.

To install the GammaLink software and configure each board on DOS-based Systems:

1. Shut down the VP system if it running.
2. Insert the GammaLink diskette labeled Disk 1 into the diskette drive.
3. From a DOS prompt type `A:INSTFAX A C` then press <Enter>.
4. When prompted, insert Disk 2. To continue, press <Enter>.
5. From the C:\VMFAXG prompt, access the C:\VMFAXG\BIN sub-directory by typing `CD BIN` then pressing <Enter>.
6. Run the setup program by typing `GFXSETUP` then pressing <Enter>.
7. When the setup program finishes initializing, at the prompt, press <F2> (scan all addresses). The setup program detects all fax channels in the PC. If it does not detect all channels, re-configure the fax board(s) using different I/O addresses.
8. Press <Esc> to exit the setup program. The program indicates that it will change the fax configuration file.
9. To continue, press <Enter>.
10. Type `FAXNUM` then press <Enter> to run the Faxnum utility. This utility verifies the link and address for each board. If the utility indicates a fax link other than CC, note the link indicated.
11. Restart the computer. Continue with the following procedure for making necessary file modifications. If you are installing multiple boards, you can make these modifications once, after the last board has been configured using this procedure.

To make necessary file modifications for GammaLink boards on DOS-based Systems:

1. Shut down the VP system if it is running.
2. Change to the directory in which the VP system is installed (by default, the \VM directory).
3. Using a text editor, access the VM.CFG file. If you are using the DOS editor for example, type EDIT VM.CFG then press <Enter>.
4. Add the following lines to the VM.CFG file:

FAX LINK=CC

SAME CALL FAX OK

> **Note:** If the Faxnum utility indicated a fax link other than **CC**, indicate that link above instead of CC.

5. Save and exit the file.
6. Using a text editor, access the VERBATIM.BAT file. If you are using the DOS editor for example, type `EDIT VERBATIM.BAT` then press <Enter>.

7. If the system is using Rhetorex voice boards, add the lines shown below immediately before the line that begins RHETDRV. If the system is using Dialogic voice boards, add the lines shown below immediately before the line that begins VMAIL:

```
CD\VMFAXG\BIN

I3LOAD
CD \VM
```

8. If the system was pre-loaded with GammaFax software, and you are re-loading the software at this time, remove the following lines from the top of the VERBATIM.BAT file, if they exist:

```
\VMFAXG\BIN\FAXNUM\VMFAXG\BIN\I3LOAD.INI

\VMFAXG\BIN\I3LOAD\VMFAXG\BIN\I3LOAD.INI
```

9. Save and exit the file.
10. If the VP system is being installed to use a switch that does not use dialtone (such as a Comdial switch), you must modify the I3LOAD.INI file in the sub-directory C:\VMFAXG\BIN. Using a text editor, access the I3LOAD.INI file. If you are using the DOS editor for example, from the C:\VMFAXG\BIN directory prompt, type `EDIT I3LOAD.INI` then press <Enter>. After the line that reads [GAMMAFAX], add the following line (with no blank line after it):

```
DIAL_PROGRESS_MODE = NONE
```

11. Save and exit the file.
12. Restart the computer.

24.3 Sharing Fax Ports

If a caller requests a fax be sent on the current call, the VP system determines whether there is a fax board connected to the current line. If so, the call continues. If the current line is not connected to a fax board, the VP system checks the configuration file VM.CFG to see if fax-port sharing is permitted (see section 12 for more information).

To indicate fax port sharing is permitted, insert the following line in the VM.CFG file:

SHARE FAX PORTS

If fax port sharing is permitted, the VP system hook-flashes and dials the extension number of a voice mail port that is both free and attached to a fax board. Once the called voice mail port answers, the original voice mail port releases the call to the port attached to a fax board.

If the original port is unable to connect to a fax-enabled port, it informs the caller that all fax lines are busy, and it offers the caller the option to hold.

To set up the system to permit fax port sharing:

1. Shut down the VP system if it is running. See section 2.5 for procedures.
2. From the \VM directory, run the program EXTNS.
3. When prompted, enter the extension number of each voice mail port, then press <Enter>.
4. Once you have entered an extension number for each voice mail port, press <Esc>.
5. You are asked to confirm the extension numbers. Press **Y** to indicate they are correct.

6. Using a text editor, access the VM.CFG file. If you are using the DOS editor for example, type `EDIT VM.CFG` then press <Enter>.
7. Edit the VM.CFG file by inserting the following line:

SHARE FAX PORTS

> **Note**: If the telephone system does not allow one voice mail port to perform a supervised transfer to another voice mail port, use this line in the VM.CFG file:
> `SHARE FAX PORTS = BLIND`

8. Save and exit the VM.CFG file.
9. Re-start the VP program.

24.4 Using Enhanced Fax Configurations

24.4.1 USING FAX BOARDS WITH DEDICATED TELEPHONE LINES

If the VP system is handling many fax requests, you may find access to standard features (voice mail and auto attendant) is being limited. You may want to re-configure the system to give the fax boards their own, dedicated telephone lines. Although the voice boards are still involved with the fax *requests*, the actual fax *transmissions* do not involve any of the VP system's voice-processing facilities.

Be advised, there are distinct limitations when using this configuration:

- The same-call fax distribution feature is not available.
- You cannot send a fax to the VP system from the fax machine. All faxes must be loaded from files (see section 24).
- The fax broadcast feature (see section 24) is not available.

To set up the system to use fax boards with dedicated phone lines, you must adjust the connection of the phone lines, adjust system settings, and set up necessary external dialing rules:

- **Connecting to the Phone Lines**—An example of a VP system with 4 voice ports (lines 1 - 4) and 4 independent fax lines (lines 5 - 8) is shown in Figure 23-3 Connecting the Fax Boards to Dedicated Telephone Lines3. Consult this illustration for information on connecting the phone lines on the VP system with which you are working.
- **Adjusting System Settings for Fax Boards Using Dedicated Telephone Lines**—On the FAX SETUP screen (see section 24), specify LINE 0 (DOS systems) / PORT 0 (Windows systems) as the connection for all fax boards. Also include the configuration file option `EXTERNAL FAX` in the VM.CFG file (see section 12).
- **Setting Up External Dialing Rules when Using Dedicated Telephone Lines**—Create any required Insert and Delete rules (see section 7).

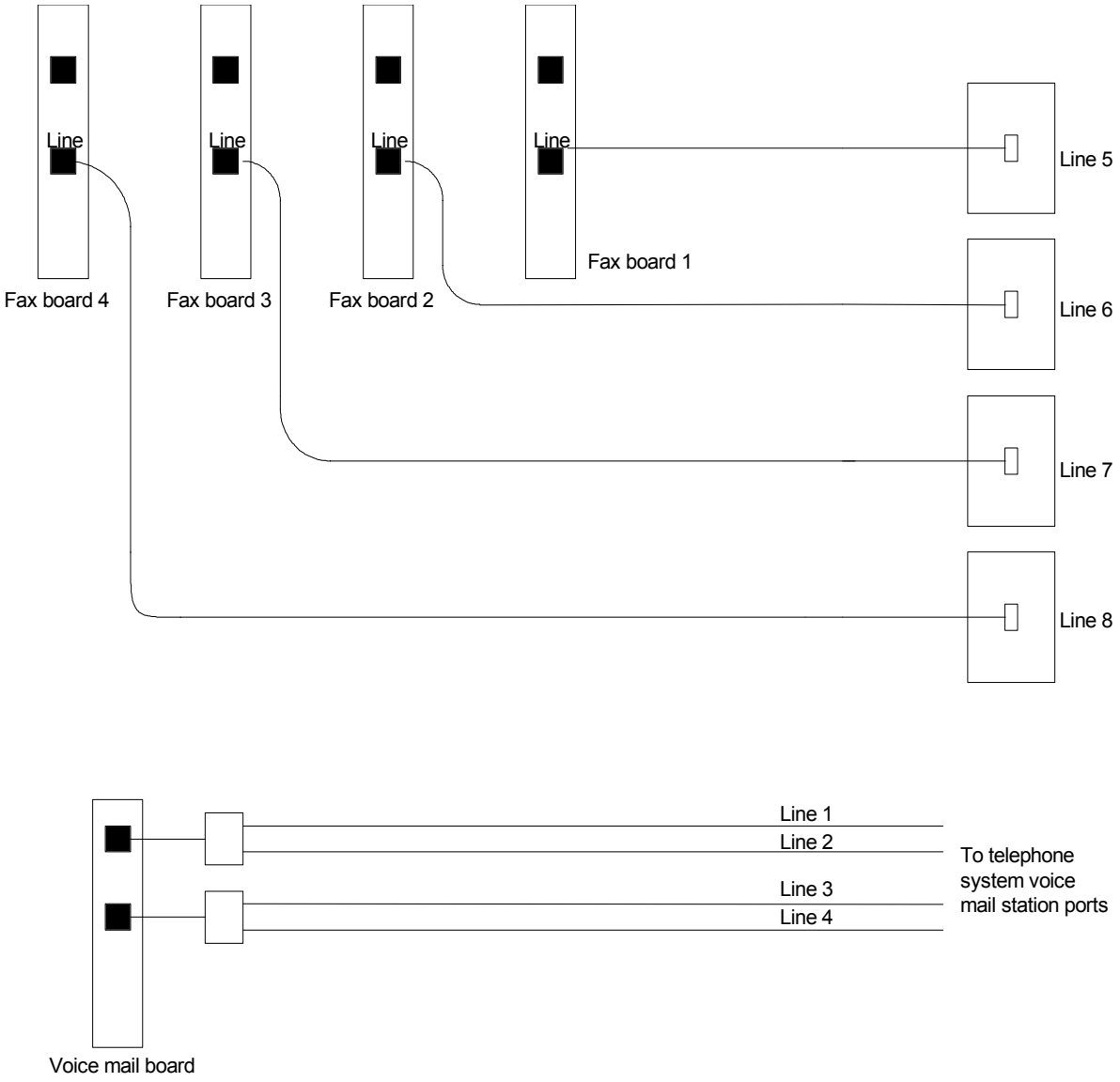


Figure 23-3 Connecting the Fax Boards to Dedicated Telephone Lines

24.4.2 USING A THIRD-PARTY APPLICATION TO SEND FAXES

The VP system allows you to send faxes via a third-party fax server instead of the integrated fax distribution configuration. When a caller orders one or more fax documents, the order is placed in a file that is located in a directory on a network server drive or a drive in a dedicated fax server. The third-party application can then "pick up" this order and send the required fax documents.

This configuration has the advantage of being able to fulfill a high volume of fax requests without sharing the resources needed to process voice mail and auto attendant functions. However, the following features are not available:

- The same-call fax distribution feature
- Fax broadcasting using the VP system Outbound telemarketing software

Installing the Hardware

You must install a compatible network board in the VP system PC. Follow the manufacturer's installation instructions, taking care that the network board does not use any memory addresses or hardware interrupts (IRQs) required in the basic VP system configuration.

Programming the Fax Box

The Fax box data should be entered as described in section 24. In the field DOCUMENT FILE-NAME, enter the drive number, directory, and file name of the document contained in the Fax box. For example, if the VP system node on the network considered the hard disk drive of the fax server to be drive M, and the fax documents are in the directory FAXDOCS, the entry in this field is:

M:\FAXDOCS\<filename>.PCX

Adjusting System Settings for Third-Party Fax Server

When programming the FAX SETUP screen, specify that faxes are to be sent using the method CALL BACK ALWAYS.

Other entries you must make on the FAX SETUP screen and whether you must use external dial rules depends on the dialing capabilities of the third-party fax server software. The fax documents themselves reside on the remote fax server, which also assumes the task of dialing the caller's fax machine and sending the requested fax(es). If that unit requires only the caller's 7 or 10 digit telephone number and can add any necessary prefixes and delete any unnecessary area codes, then the balance of this may be left at its default value, and no dial rules need be built. However, if the fax server can only dial the exact numbers sent to it in the fax order (see below), you must follow procedures in section 24 to ensure the VP system examines the callback digits entered by the party requesting the fax(es), then inserts and /or deletes the required digits before placing the numbers in the fax order file.

Understanding the Fax Order File

When a caller orders one or more fax documents, the order is sent to a file located in a directory with the default name FAXORDER (this can be changed as explained later in this section). The format of the file is as follows:

```
date   time
sender's company name
recipient's fax machine telephone number
recipient's extension (or ID) number
cover page filename (no path)
filename of the first fax document (including path)
filename of the second fax document (including path)
file name of the third fax document (including path)
```

To demonstrate how the VP system sends a typical fax order request, assume the following:

- A caller has requested 3 documents to be delivered to 555-1212, attention of extension 1122.
- The fax server can only dial the exact digits within the fax order, and the fax boards being used recognize the * digit as a pause.
- The fax server is connected to PBX extensions, and it must dial a **9** to get an outside line.
- The 555 exchange is a long-distance call and requires a **1** prefix.
- The FAX SETUP screen specifies NO COVER PAGE and EXT (for an external dial rule).

Under these conditions, the fax order sent to the server looks like this:

```
01-18-94   15:55:10
ACME Sales Company
9*15551212
1122
(This line is blank as there is no cover page.)
M:\FAXDOCS\PRICES.PCX
M:\FAXDOCS\CONTRACT.PCX
M:\FAXDOCS\PICS.PCX
```

The VP system automatically generates a filename for this fax order in the format:

FB000xxxx.FBX

where xxxx is an order number in the range of 0000 through 9999. When the order numbers reach 9999, it automatically resets to 0000.

Adjusting the Configuration File

To tell the VP system you are using the third-party fax server option, enter the following line in the VM.CFG configuration file (see section 12):

CUSTOM = 32

To designate a different network drive for the fax order files and/or to use a directory name other than the default FAXORDER, enter:

FAX ORDER PATH = <drive> \ <directory>

For example, if you want to place the orders in the directory ORDERS on the G drive, enter:

FAX ORDER PATH = G:\ORDERS

Note:	The drive location of the fax documents is not necessarily the same drive as the fax orders (drives M: and G:, respectively in this example).

The VP system also automatically creates a file in the FAXORDER directory with the filename SERIAL.TXT. This file contains the VP system serial number and is provided for the use of the third-party fax application. It may be used, ignored, or deleted at any time.

Call Logging Files

The only VP system log files available with this configuration are those that record calls to the Fax box. This would not necessarily indicate that a document was sent, since the caller may have listened to the document description and decided not to order the document.

Also, the VP system does not keep copies of the fax orders it sends to the fax server. If possible, set up the fax server program to add a time and date stamp to fax orders after they have been filled and store these records to its own log file.

25. USING THE FAX DISTRIBUTION MODULE

> **Note**: Refer to instructions in section 23 for information on installing the Fax Distribution module on VP system systems.

Using the optional Fax Distribution (also known as *Fax Retrieval*) module, you can store fax documents on the VP system and allow callers to retrieve them. Any mailbox owner can be given the ability to send fax documents into the VP system. Any caller can then call in to retrieve those documents.

> **Note:** You can control caller access to documents by assigning passwords to documents. The VP system prompts callers to enter the document's password before permitting fax access to the document.

A caller can retrieve a fax two ways:

- Using the Call Back method, the caller identifies which document(s) he/she requests, then enters the number of his/her fax machine. The VP system calls the fax machine and delivers the documents.
- Using the Same Call method, the caller must be placing a call from a fax machine *and* the VP system line receiving the call must be connected to a fax board or fax-port sharing must be enabled. The VP system faxes the caller the document(s) he/she requests during the same call.

25.1 Setting up a Fax Box

Every fax document is contained in a Fax box, and each Fax box contains one document, referenced by a filename. This file in the Fax box can contain several pages of text or graphics.

25.1.1 ACCESSING THE FAX BOX SCREEN

> **Note:** Refer to section 29 for graphical illustrations of all VP system screens.

To access the Fax box screen through the DOS-based VP system screen interface:

1. From the LINE STATUS screen, press <F10>. The Main menu displays and you are prompted to enter a system password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Customer level passwords on the GENERAL INFORMATION screen.
3. From the Main menu, select BOX INFORMATION. The Box Information menu displays.
4. Select the OPTIONAL FEATURES option, then from the menu that displays, select FAX BOX. When you have made necessary modifications to the screen, press <F10> to save the changes. You return to the Box Information menu.

To access the Fax box screen through the Windows-based VP system screen interface:

1. From the Windows desktop, double-click the DATABASE ADMINISTRATOR icon. You are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Administrator level passwords on the GENERAL INFORMATION screen.
3. Access the BOXES pull-down menu.
4. Select the OPTIONAL FEATURES option, then from the menu that displays, select FAX BOX. When you have made any necessary modifications to the screen press <F10> to save the changes or click on the Save icon on the screen. You return to the main screen.

Note:	Field names and screen descriptions for both DOS-based and Windows-based systems screens are presented in this section. Each field description identifies the field name used in both types of products. Be advised that due to differences in the screen design between DOS-based and Windows-based systems, the placement of fields on several screens vary slightly. All fields on all screens *are* discussed in this section.
Note:	**To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.**

25.1.2 FAX BOX FIELD DESCRIPTIONS

Be advised that due to differences in the screen design between DOS-based and Windows-based systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

Fields used in DOS-based systems are prefaced below with **DOSVP**, and fields used in Windows-based systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the VP field resides on a certain screen page, the tab or page is identified next to the field name.

Several field descriptions discuss setting fields to YES or NO settings. In Windows-based systems, this equates to checking or un-checking the field's checkbox, which you do by clicking on it.

DOSVP:Box Number
WINVP:Box Number

This field displays the Fax box number. A box number can be any number between 1 and 9969 (boxes 9970 – 9999 and 0 are reserved for the system). You cannot change the box number on the screen. To view a new box, use keys <F4> (select a box number), <F5> (previous Fax box), or <F6> (next Fax box). To add a new Fax box, press <F2> (add).

On Windows-based systems, a box number can be up to 9 digits between 1 and 999999999 (except boxes 9970 – 9999 and 0, which are reserved for the system). Windows-based VP system users can create and view Fax boxes by selecting from icons at the top of the screen.

DOSVP:Box Name
WINVP:Box Name

This field identifies the name of the Fax box. The name is used for administration purposes only, and it appears in the database listing.

DOSVP:Document Name Recorded
WINVP:Name Recorded button

This field identifies whether the document name has been recorded. On Windows-based systems, an existing recording is signified by a red light displaying on the button.

The name is normally a short description of the document (for example, "Summer price list"). When a caller requests this document, the document name is played to confirm that this is the correct document:

"Summer price list. If this is correct, press 1."

On DOS-based systems, when you bring the cursor into this field, a menu appears, offering the option to play, delete, copy, or record the name. By selecting RECORD you can record the name via a telephone line connected to the voice processing board. To record the name, select RECORD, press <Enter>, and call into voice mail line 1. When voice mail answers, select RECORD and speak the name. To end the recording, press <Enter> again. To hear the recording, select PLAY.

On Windows-based systems, you can record the name by clicking on the Record Name button, then using the controls on the Sound Recorder dialog box. At the lower-right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

DOSVP:Owner Box
WINVP:Owner

This field contains the mailbox number of the owner of the Fax box. The owner is the only caller who can send a fax document into the Fax box (all other callers can retrieve the document).

DOSVP:Document File-Name
WINVP:Document Filename

This field identifies the actual file containing the fax document. If the files do not reside in the default directory \VM\M, then you must include the full path and filename.

If you leave this field blank, the VP system automatically names the files for you and places them in the \VM\M directory.

DOSVP:Document Type
WINVP:Document Type area

If the document to be placed in this box is a text file, this field must be set to TEXT (or WIDE TEXT if there are more than 80 characters per line), otherwise it should be set to GRAPHICS. If the document is faxed into this fax box, select GRAPHICS.

If you are using this Fax box to send IVR confirmation (in conjunction with the optional IVR module), select IVR RESPONSE.

DOSVP:Document Security Code
WINVP:Document is Password Protected

This field identifies the security code a caller must enter to access the document. The security code allows you to restrict access to a document (specify the code using digits 0 through 9). The fax is not sent unless the code is entered correctly by the caller. Leave this field blank if you do not want to protect this document.

DOSVP:When Exiting Box, If Caller May Order More Documents
WINVP:If Caller Can Order More Documents

Once the VP system has confirmed that the document will (or will not) be delivered, it continues with the call. It tells the caller how many more documents he/she can order on this call. If the caller has not yet ordered the maximum number of documents, the call follows the routing instructions indicated in this field. The options are:

Option	Description
go to box	Choosing this option allows the call to be routed to another box. The new box number can be entered in the next field.
say goodbye	The VP system says, "*Good-bye,*" then hangs up.
return	The VP system goes back to the box from which it came.
hang up	The VP system immediately hangs up.

DOSVP:Box
WINVP:(Unlabeled Box field)

This field is valid only if the option in the corresponding field is set to GO TO BOX. The field contains the box number to which the call is to be routed if the caller enters a valid account number.

DOSVP:When Exiting Box, If Caller Has Ordered Max Number of Docs
WINVP:If Maximum Number of Documents Ordered

If the caller has ordered the maximum number of documents, the call follows the routing instructions indicated in this field. The options are:

Option	Description

go to box	Choosing this option allows the call to be routed to another box. The new box number can be entered in the next field.
say goodbye	The VP system says, "*Good-bye,*" then hangs up.
return	The VP system goes back to the box from which it came.
hang up	The VP system immediately hangs up.

DOSVP:Box
WINVP:(Unlabeled Box field)

This field is valid only if the option in the corresponding field is set to GO TO BOX. The field contains the box number to which the call is to be routed.

25.2 Setting up System Settings for Fax

There are several system parameters you can change to customize operation of the Fax Distribution module. You modify these parameters on the FAX SETUP screen.

25.2.1 ACCESSING THE FAX SETUP SCREEN

> **Note:** Refer to section 29 for graphical illustrations of all VP system screens.

To access the Fax Setup screen through the DOS-based VP system screen interface:

1. From the VP system main screen, press <F10>. The Main menu displays, and you are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Customer level passwords on the GENERAL INFORMATION screen.
3. From the Main menu, select SYSTEM INFORMATION. The System Information menu displays.
4. Select the OPTIONAL FEATURES option, then from the menu that displays, select FAX SETUP. When you have made necessary modifications to the screen, press <F10> to save the changes. You return to the System Information menu.

To access the Fax Setup screen through the Windows-based VP system screen interface:

1. From the Windows desktop, double-click the DATABASE ADMINISTRATOR icon. You are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Administrator level passwords on the GENERAL INFORMATION screen.
3. Access the System pull-down menu.

4. Select the OPTIONAL FEATURES option, then from the menu that displays, select FAX SETUP. When you have made any necessary modifications to the screen press <F10> to save the changes or click on the Save icon on the screen. You return to the main screen.

Note:	Field names and screen descriptions for both DOS-based and Windows-based systems screens are presented in this section. Each field description identifies the field name used in both types of products. Be advised that due to differences in the screen design between DOS-based and Windows-based systems, the placement of fields on several screens vary slightly. All fields on all screens *are* discussed in this section.
Note:	**To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.**

25.2.2 FAX SETUP SCREEN FIELD DESCRIPTIONS

Be advised that due to differences in the screen design between DOS-based and Windows-based systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

Fields used in DOS-based systems are prefaced below with **DOSVP**, and fields used in Windows-based systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

Several field descriptions discuss setting fields to YES or NO settings. In Windows-based systems, this equates to checking or un-checking the field's checkbox, which you do by clicking on it.

DOSVP:Fax Cover Page Preference
WINVP:Fax Cover Page area

This field allows you to specify whether and what type of cover page the VP system is to generate with the fax. If you choose DEFAULT from the menu, the VP system sends the default cover-page, which contains the company name and the extension number of the recipient of the fax. On DOS-based systems, it also contains the company logo, if you specify the name of a file in the next field (see below). If you choose CUSTOM, the VP system transmits the contents of the file you specify in the next field (see below). If you choose NONE or NO COVER PAGE, then no cover page is sent.

DOSVP:Filename for Cover-Page Logo
WINVP:Custom – From File

This field identifies the name of the file to be used as or on the fax cover page. If the fax cover page option is set to CUSTOM, specify in this field the name of a .PCX file (DOSsystems) / .TIF file (WIN-systems) containing the image you want the VP system to send as a cover page. The file should be stored in the directory housing the VP system (by default this is \VM). On DOS-based systems, if you selected DEFAULT as the fax cover page option and you want the company logo included on the cover page, specify in this field the name of a .PCX file containing the logo. This file also should be stored in the directory housing the VP system.

Note:	To create a .TIF file on the VP system containing a custom fax cover page, fax the document you want to use into a file on the VP system by following the procedures for Sending a Fax into a Fax Box.

DOSVP:How to Transmit Faxes
WINVP:Send options area

This field allows you to specify how faxes are to be sent to callers. The options are:

Option	Description
offer option	If there is a fax board connected on this line (or fax-port sharing is enabled), the VP system asks the caller if he/she is calling from a fax machine. If the caller is calling from a fax machine, then the VP system sends the documents before ending this call. If the caller is not calling from a fax machine, then the VP system asks the caller for the number of the fax machine to which it should send the documents. At the end of the call, the VP system looks for a line that is free and that has a fax board connected to it. It uses that line to make an outgoing call to the number supplied by the caller.
call back always	The VP system never sends fax documents as part of this call. It always asks the caller for his/her fax number (and also an extension number, if you are using the default cover-page option), and calls the number back.
same call always	The VP system never offers to call the caller's fax machine. It sends the documents as part of the current call. This means that the caller must be calling from a fax machine. You should make this clear to the callers before routing them to a Fax box. Do not use SAME CALL ALWAYS unless you have a fax board connected to every line or fax-port sharing is enabled.

The flow chart in Figure 24-1 Determining How to Send Fax Documents to the Caller illustrates how the VP system uses this information.

DOSVP:Max Faxes We Will Send Per Call
WINVP:Maximum Number of Documents to Send per Call

A caller can request more than one document per call. The VP system accepts orders for up to ten documents. If you want to restrict callers to fewer than ten documents, enter the new number here. Once a document has been ordered, the VP system tells the caller how many more documents he/she can order on this call. For example:

“You may order up to 4 more fax documents.”

If a caller attempts to order more than the allowed number of documents, the VP system says:

“I'm sorry, you have already ordered the maximum number of faxes.” and continues as normal.

DOSVP:Sending Resolution
WINVP:Resolution area

This field indicates the resolution at which the fax is sent. Select FINE if you want to send faxes at the higher resolution. Select STANDARD for lower-resolution faxes. High-resolution faxes take longer to send, but may look better.

DOSVP:Fax 1 is Connected to Line
WINVP:Fax Port 1 is Connected to Voice Port *(Wiring tab)*

Fax boards and the voice boards share telephone lines. Any fax board can be connected to any telephone line. Use this field to tell the VP system to which line fax board 1 is connected. Enter **0** if fax board 1 is not used.

DOSVP:Fax X is Connected to Line
WINVP: Fax Port X is Connected to Voice Port *(Wiring tab)*

If you are using more than one fax channel, use these fields to indicate to the VP system to which lines fax channels 2 through 16 are connected. Enter **0** to indicate that a particular fax channel is not in use.

Note:	The remaining fields of the FAX SETUP screen and the external dial rules define how the VP system dials the caller's fax machine. If the system is connected to a key system, PBX, or Centrex, the same rules specified in the field DIGITS TO GET A LINE ON EXTERNAL CALL (GENERAL INFORMATION screen (DOSsystems) / PBX INFORMATION screen (WINsystems) apply. If, for example, you have Centrex service with 4-digit extensions and the caller's fax machine is on an extension at another location, the VP system does not insert a **9**. If another caller leaves a 7 or 10 digit callback number, the system inserts a **9** plus any other modifications as explained below.

DOSVP:Digits to Strip From Callback Number
WINVP:Digits to Strip from Callback Number *(Miscellaneous tab)*

When a caller is entering the number of his/her fax machine, he/she will probably enter the area code. To prevent the VP system from dialing the *local* area code, enter it in this field. Before making a call, the VP system checks the leading digits of the number it is about to dial. If these digits match the digits in this field, then the VP system strips them from the number. For example, if the local area code is 305, and the caller enters the fax number as 305-555-1234, the VP system dials 555-1234 when making the call.

> **Note**: If you need to modify the number entered by the caller in some other way (for example, if you need to strip out the area code only for certain calls or you need to prefix a 1 on certain 7-digit numbers), enter EXT in this field, to tell the VP system to look for a file containing this information. The VP system looks in the VP system directory—by default this is \VM —for the file DIALRULE.TXT. You must create this file, and enter the information (see section 7.25).

DOSVP:Prefix a Digit-1 For Long-Distance
WINVP:Insert a '1' for Long-Distance *(Miscellaneous tab)*

> **Note**: If you entered EXT in the previous field (for external dial rule), this field is not used and should be left blank.

In the North American numbering plan, a caller must dial a 1 before making a long-distance call. If you set this field to YES, then the VP system counts the number of digits in the callback number. If there are exactly 10 digits (area code plus telephone number), the VP system automatically inserts the digit 1 in front of the number. Note that the VP system strips off the local area code entered in the previous field first, before counting the digits.

DOSVP:If Call Fails, Try X More Times
WINVP:If Call Fails, Try X More Times *(Miscellaneous tab)*

When the VP system makes an outgoing fax call, it monitors the call to see if the fax was transmitted successfully. If not, it can retry up to the number of times specified in this field.

DOSVP:At Intervals of X Minutes
WINVP:At Intervals of X Minutes *(Miscellaneous tab)*

If the called fax machine is busy or does not answer, you can program the VP system to make several attempts to get through. Use this field to tell the system how long it should wait before trying again. While waiting, the VP system continues processing other queued fax requests.

DOSVP:Path for Fax Distribution Documents
WINVP:Directory for Fax Distribution Documents *(Miscellaneous tab)*

Indicate where you want to store the fax distribution documents. Each time you add a new fax document, it is stored in this location. The default is the \VM\M directory.

DOSVP:Path for Fax-Mail Documents
WINVP:Path for Fax-Mail Documents *(Miscellaneous tab)*

If you are using the optional FaxMail module, indicate the path where you want for the incoming fax documents to be stored. The default is the \VM\FAXMAIL directory. See section 25 for details on the FaxMail module.

25.2.3 SETTING UP FAX DISTRIBUTION RESTRICTIONS

When callers are retrieving documents using the callback method, the VP system requests them to enter the telephone number of their own fax machine. You may use fax restriction fields to restrict certain area and / or office codes, or to restrict "nuisance" calls (911, 1900, etc.).

Windows-based VP system users can access fax restriction fields on the Restricted Numbers tab of the FAX SETUP screen. DOS-based VP system users access fax restriction fields using the following procedure:

To access the Fax Restriction screen through the DOS-based VP system screen interface:

1. From the VP system main screen, press <F10>. The Main menu displays, and you are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Customer level passwords on the GENERAL INFORMATION screen.
3. From the Main menu, select SYSTEM INFORMATION. The System Information menu displays.
4. Select the OPTIONAL FEATURES option, then from the menu that displays, select FAX RESTRICTIONS. When you have made necessary modifications to the screen, press <F10> to save the changes. You return to the System Information menu.

> **Note:** The field name used in both the DOS-based systems and Windows-based systems is identified with each field description. Fields used in DOS-based systems are prefaced with **DOSVP**, and fields used in Windows-based systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.
>
> **To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.**

DOSVP:Restriction Type
WINVP:Restriction Type *(Restricted Numbers tab)*

This field identifies the restriction type. WINVP system options are worded slightly differently, but on DOSsystems, the options are:

Option	Description

allow only these	The VP system prohibits all calls except those to numbers indicated in the following fields. This is the most secure form of restriction, since you can restrict calls to individual area codes, area code / office code combinations, or even individual telephone numbers.
block only these	The VP system allows all calls except those to numbers indicated in the following fields. Typically, you block calls to the operator (0), calls to 911, calls to 1-900 numbers, and calls to 976 and 1-976 numbers.

DOSVP:Digits
WINVP:Digits *(Restricted Numbers tab)*

These fields allow you to define up to 20 digit sequences that should be blocked or allowed (depending upon what you selected for RESTRICTION TYPE). The VP system looks at each DIGITS field to determine if any entry matches the callback number entered by the caller. If the callback number begins with any of the digit sequences entered in these fields, the VP system considers this a match and allows or blocks the call.

> **Note**: The VP system looks for a match in the Digits field based on the callback number entered by the calling party before any digit prefixing, digit stripping, or external dial rules are applied. Even though the system prompts the caller to enter only his/her area code and telephone number, you must allow for the case where the caller also enters a 1. Therefore, to provide a positive block for 900 numbers, for example, you need to enter both 900 and 1900 in a Digits field.

Be advised that the VP system looks for a match for only the digits you have entered. For example, if you selected BLOCK ONLY THESE and you entered 1900 in one of the DIGITS FIELDS, 1-900-555-1212, 1-900-123-4567, and 1-900-111-2222 are all considered matches and these callback numbers are blocked. Telephone number 1-901-555-1212 is *not* considered a match and is allowed.

If you enter the digit 0 in one of the DIGITS fields, the VP system considers all numbers beginning with 0 to be matches. This would include 0, 00, 0+ and 011+ calls.

25.3 Sending a Fax into a Fax Box

On Windows-based systems, the document you want to place in a Fax box may exist in one of two forms:

- A file on the computer disk
- A document on paper

The document on disk can be placed in a Fax box using the Fax from the Desktop feature. The document on paper must be faxed into the Fax box.

On DOS-based systems, the document you want to place in a Fax box must be a hard copy (paper) document so it can be faxed into the Fax box.

> **Note:** On DOS-based systems, fax documents are stored in the .PCX file format. On Windows-based systems, fax documents are stored in .TIF file format.

25.3.1 USING FAX FROM THE DESKTOP TO SEND A DOCUMENT INTO A FAX BOX

On Windows-based systems, you can use the Fax from the Desktop feature (installed with VCM) to fax a document created in a Microsoft Windows application directly into a Fax box (requires VCM version 2.1.7 or higher).

This feature is available on a client PC if during the VCM client software installation, the installer selected the option that allows the client to modify Fax box files.

Before attempting to fax a document from the desktop into a Fax box on the VP system PC, ensure the Fax box is created on the VP system by following the procedure detailed above. Be advised that in the FILENAME field, you should specify the filename according to the following format:

File Contents	Filename	Key
Documents for Fax Retrieval on Windows-based systems	fxzzxx.fax	Xx is the number of the Fax box containing this document (may be up to **9** digits) zz is the number of leading zeros necessary for an **11-character** filename

To use the Fax from the Desktop feature to send a document directly into a Fax box, access the document in the Microsoft Windows application. Print the document as you would if you were faxing it from the desktop (select FAX FROM THE DESKTOP as the printer). When the FaxDrv screen displays, de-select the FAX COVER PAGE option and clear the FROM, TO, COVER SHEET, SIGNATURE, and LOGO fields. Select the TO VM FILE option. Select the Send button to transmit the document.

On the FAX TO FILE screen, in the bottom field, type the document filename you indicated on the Fax Box screen of the Fax Box created to house this document (see the filename convention in the table above).

Do not change the default directory shown in the top field unless necessary—this directory path was automatically detected as the path to the VP system PC and should be correct.

Be advised that the fax from the desktop feature will not be operational on a client PC until the VCM program has been launched and logged into at least one time on that client workstation. VCM does not have to be running when a subscriber uses the fax from the desktop feature—it simply must have been launched at least one time before fax from the desktop is operational.

25.3.2 SENDING A DOCUMENT ON PAPER INTO A FAX BOX

To send a document on paper into a Fax box:

1. Access the FAX BOX screen as described in section 24.1.
2. Complete all fields using information provided earlier in this section.

   In the FILENAME field, you can indicate the complete name of the file in which you want to store the fax document on the system. Include the directory path before the filename if you want to store the document file in a directory other than the default set on the FAX SETUP screen, which is the \VM\M directory.

   If you leave the FILENAME field blank, the VP system will automatically name the document file it creates. (See the section on Sending a Document on Disk into a Fax Box for the format of the default filename.)

   Specify GRAPHICS as the document type.
3. Press <F10> to exit from the Fax box.

The Fax box has now been created. Now you must fax the document into the box.

1. From a fax machine, call in to the VP system on a line to which a fax board is connected (or on *any* line, if fax-port sharing is enabled).
2. When the VP system answers, open the mailbox assigned as the owner of the Fax box (by routing to the voice mail gateway, then entering the mailbox number and password).
3. The VP system plays the Main menu.

"To listen to your messages, press 1.
To send a message, press 2.
To change your options..."

4. Press 7 for fax options. The VP system prompts you for a Fax box number.
5. Enter the Fax box number. The VP system verifies you are the owner of the Fax box, then plays the document name and number for confirmation.
6. Press 1 to confirm this is the correct Fax box. The VP system prompts you to press START on the fax machine.
7. Press the START button to fax the document into the VP system. The document is accepted by the VP system and placed in the specified Fax box.

25.4 Retrieving a Fax from the VP system

To give a caller access to a document, simply route the call to the Fax box containing the document. The VP system plays the document name to confirm the caller's selection. Once the caller has confirmed the document is the one he/she wants to receive, the VP system determines how it is going to send this and other documents ordered during the call. Figure 24-1 Determining How to Send Fax Documents to the Caller shows how the VP system makes its determination:

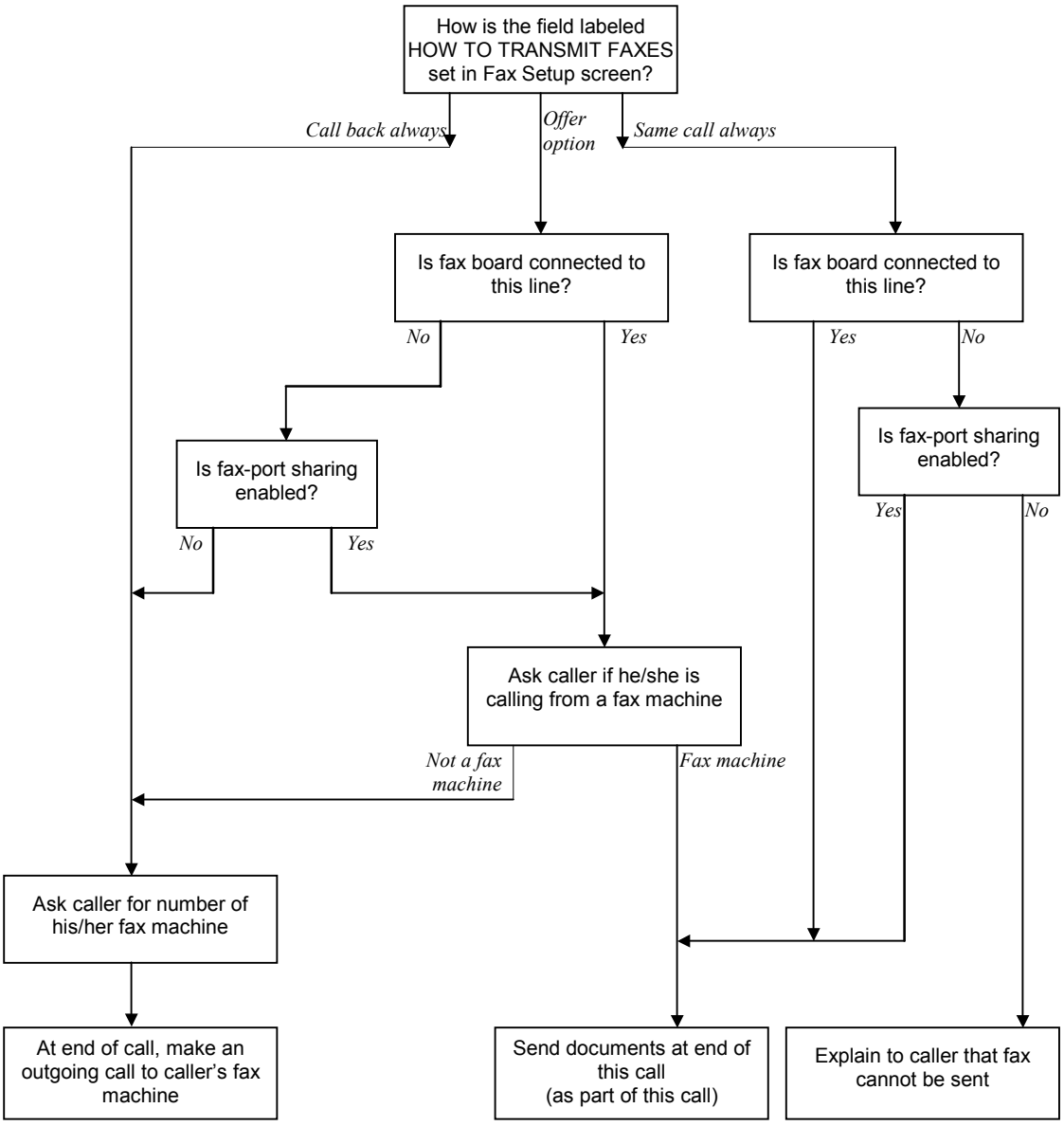

How is the field labeled HOW TO TRANSMIT FAXES set in Fax Setup screen?
Call back always
Offer option
Same call always
Is fax board connected to this line?
Is fax board connected to this line?
No
Yes
Yes
No
Is fax-port sharing enabled?
Is fax-port sharing enabled?
No
Yes
Yes
No
Ask caller if he/she is calling from a fax machine
Not a fax machine
Fax machine
Ask caller for number of his/her fax machine
At end of call, make an outgoing call to caller's fax machine
Send documents at end of this call (as part of this call)
Explain to caller that fax cannot be sent

Figure 24-1 Determining How to Send Fax Documents to the Caller

Assume, for example, John Smith has two documents he wants to make available to the public, a price list and a product catalog. These exist on paper, so he follows the steps outlined above to place them in Fax boxes 4000 and 4001 respectively.

Also assume John has set the following options on the FAX SETUP screen:

Fax cover page preferences:Default
How to transmit faxes:Offer option
Max faxes we will send per call:4

A customer, Mary, calls in for a price list and hears the greeting recorded in John's initial Routing box.

"Wel*come to Smith Products. If you know the extension number of the person to whom you want to speak, please dial it now. If you would like us to fax you a price list, dial 4000, or for a product catalog, dial 4*001. Otherwise, stay on the line, and an operator will be right with you."

Mary dials 4000. The VP system routes the call to Fax box 4000 then plays the document name recorded by John when he set up this Fax box. The VP system then asks Mary to confirm her choice:

"Sm*ith Products summer price list. If this is correct, press 1."*

Mary presses 1 to confirm that this is the document she wants. The VP system looks at the field on the FAX SETUP screen and sees that it should offer the caller the option of having the documents transmitted on this call or via a callback. The VP system prompts Mary to indicate whether she is calling from a fax machine:

"If you are calling from a fax machine, please press 1."

Mary is calling from a regular telephone, so she presses 2 (or does nothing), to tell the VP system that she is not calling from a fax machine. The VP system now knows it must send the documents by making an outgoing call to the caller's fax machine, so it asks for the telephone number:

"Please enter the telephone number of your own fax machine now."

Mary enters the telephone number 555-1234. The VP system asks Mary to confirm the number:

"The number is 555-1234. If this is correct, press 1."

Mary confirms this is the correct number. Since the VP system will be sending the default cover page (see assumptions above), it can insert an identifying number (for example, an extension number) into the cover page. The VP system gives Mary the option to include this information:

"If you have an extension number, please enter it now."

Mary can enter up to 10 digits. The VP system then indicates that it will send the document:

"That fax will be sent when you hang up."

It then tells Mary how many more documents she can order during this call:

"Y*ou may order up to 3 more fax documents."*

John has configured Fax box 4000 to go to another Routing box when the caller requests no more faxes. The VP system routes the call to that Routing box, and the call continues as normal. At the end of the call, the VP system places the fax request on a queue for the fax board. The fax(es) will be sent when this request gets to the top of the queue.

When Mary's request reaches the top of the queue, the VP system examines the telephone number that Mary entered. Before dialing the number, the VP system may need to add digits or remove digits. For example, assume Mary is in area code 305 and the VP system is also in area code 305. When Mary entered her fax telephone number, she may have included the area code (305-555-1234). If John has configured the VP system to strip area code 305 from entered numbers, the VP system dials only 555-1234.

Alternatively, assume Mary is in a different area code such as 919. She enters her fax number as 919-555-1234. Because this is a different area code, the VP system must dial a 1 first. To accommodate this situation, John must indicate during setup that the VP system should prefix all 10-digit numbers with a 1.

These two settings are sufficient for most applications. However, there are occasions when the telephone network requires you to prefix some 7-digit numbers with a 1. Also, there are occasions when you are required to include the area code in the dialed number, even when dialing within the same area code.

If you install the VP system in an area where these factors apply, you need to provide the VP system with extra information (as explained earlier in this section), so it knows when to prefix digits and when to remove digits.

25.5 Setting Up Fax Broadcasting

If you want the VP system to send a fax document to several fax machines, you can use the Fax Distribution module in conjunction with the optional Outbound Telemarketing feature package.

1. To broadcast a fax document, there four general steps:
2. Create a text file containing a list of the fax telephone numbers you want the VP system to dial.
3. Create a Fax box containing the fax document to be transmitted.

   Include the following statement in the configuration file VM.CFG:

   ```
   FASTFAX
   ```

4. Set up a Telemarketing box to process the list of numbers (see section 28). Enter the number of the Fax box created in the ON ANSWER, GO TO BOX field of the Telemarketing box.

25.6 Logging Fax Calls

25.6.1 USING THE GENERAL CALL LOG FILE

When you use the fax distribution module, the general call log file (VOICMAIL.LOG) includes an entry for outgoing fax calls. This entry is denoted by **F** in the CALL TYPE field of the log. The AUDIT TRAIL fields indicate which faxes (Fax boxes) were sent.

Note that this call type log record is generated only for those documents transmitted using the fax callback option. If the fax documents were sent using the same-call method, the Fax boxes display in the incoming-call record only.

Also note that this log indicates that a call was made, it does not indicate whether or not the fax was successfully transmitted. The fax log file (see below) gives details about the result of the transmission.

25.6.2 REVIEWING THE FAX LOG FILE

The VP system keeps a log of all outgoing fax calls. The log file includes the time and date of the call, the destination fax number, the contents of the 'To' and 'From' fields, and the result (for example, Success, Busy, etc.).

If an EXPORT PATH is defined in the VM.CFG file, the log file is stored there, under the name VMFAX.LOG. If no export path is defined, the file is stored in the same directory as the general call log files (by default, the \VM\M directory). At midnight each night, the VMFAX.LOG file is renamed to FAXmmdd.LOG, where **mm** is the current month, and **dd** is the day that has just ended. For example, at midnight on July 23, the VMFAX.LOG file is renamed to FAX0723.LOG. A new VMFAX.LOG is generated as soon as a new fax call is made on July 24.

25.7 Using Fax Distribution Prompts

25.7.1 USING NEW PROMPTS

The following prompts are used by the Fax Distribution module:

Prompt	Filename	Contents of Phrase
1100	faxconf.voi	“That fax will be sent when you hang up.”
1101	faxcancl.voi	“That fax will not be sent.”
1102	enterfax.voi	“Please enter the number of your own fax machine now.”
1103	maxfaxes.voi	“I'm sorry, you have already ordered the maximum number of faxes.”
1104	notfaxln.voi	“This line does not offer fax service.”
1105	faxdone.voi	“To receive your fax documents now, press 1. Or to continue, press 2.”
1106	faxmachn.voi	“If you are calling from a fax machine, press 1. If not press 2.”
1107	enterfid.voi	“If you have an extension number, please enter it now.”
1108	faxorder.voi	“You may order up to”
1109	faxmore.voi	“more fax document.”
1110	faxesmor.voi	“more fax documents.”
1111	faxpress.voi	“Please press the START button on your fax machine, and then hang up.”

25.7.2 MODIFYING EXISTING PROMPTS

The following prompts, which are part of the standard VP system package, must be modified to include the options for the Fax Distribution module. The phrase that needs to be added is shown below. A few of the most commonly used versions of these prompts have been pre-recorded and are described below. You can use these pre-recorded modified prompts by copying them onto the system, or you can re-record the prompts that must be modified using procedures detailed in section 15.

Prompt	Filename	Modification Required
65	mainmenu.voi	Add fax option (number 7)...”... to input a fax document, press 7...”
67	mainmenx.voi	Add fax option (number 7)...”... to input a fax document, press 7...”

25.7.3 COPYING PRE-RECORDED MODIFIED PROMPTS

The following prompts were pre-recorded and can be used to replace the existing prompts supplied with the standard VP system software package. These prompts were copied to the \VM\P directory when the Fax Distribution module was installed. Pre-recorded modified prompts have the same file-names as their corresponding standard prompts, but they use a different file extension.

To copy a modified prompt to the active system, follow these steps:

1. Shutdown the VP system if it is currently running.
2. Locate the prompt you want to use in the following table and make a note of the filename.
3. Copy the file over the prompt with the .VOI file extension. (You may want to first rename the .VOI prompt an extension .OLD, so if you ever want to revert back to it, the prompt is still available.) Copy the file. For example, to replace the existing prompt 65 with MAINMENU.OP3, access a command prompt and type the following command:

`COPY \VM\P\MAINMENU.OP3 \VM\P\MAINMENU.VOI` then press <Enter>

4. When you finish modifying prompts, re-start the VP system.

Prompt	Filename	Contents of Phrase
65	mainmenu.op3	“Main menu. To listen to your messages, press 1. To send a message, press 2. To change your options, press 3. To input a fax document, press 7. Or to exit, press #.”

65	mainmenu.op4	“Main menu. To listen to your messages, press 1. To send a message, press 2. To change your options, press 3. To change languages, press 5. To input a fax document, press 7. Or to exit, press #.”
65	mainmenu.op5	“Main menu. To listen to your messages, press 1. To send a message, press 2. To change your options, press 3. For supervisor functions, press 6. To input a fax document, press 7. Or to exit, press #.”
67	mainmenx.op3	“Main menu. To listen to your messages, press 1. To send a message, press 2. To change your options, press 3. To listen to questionnaire answers, press 4. To input a fax document, press 7. Or to exit, press #.”
67	mainmenx.op4	“Main menu. To listen to your messages, press 1. To send a message, press 2. To change your options, press 3. To listen to questionnaire answers, press 4. To change languages, press 5. To input a fax document, press 7. Or to exit, press #.”
67	mainmenx.op5	“Main menu. To listen to your messages, press 1. To send a message, press 2. To change your options, press 3. To listen to questionnaire answers, press 4. For supervisor functions, press 6. To input a fax document, press 7. Or to exit, press #.”

26. USING THE FAXMAIL MODULE

Note:	Refer to instructions in section 23 for information on installing the FaxMail module on systems VP system systems.

The VP system optional FaxMail module is designed to function much like a traditional fax machine used to receive incoming faxes with 3 exceptions:

- Every person in the company can have their own "personal" fax machine. Incoming faxes are stored as documents on the VP system disk accessible only by a mailbox owner through his/her mailbox.
- Mailbox owners are notified immediately that they have received a fax via the mailbox notification features (message waiting lamps, pagers, message delivery, etc.).
- Mailbox owners may retrieve their fax documents from any fax machine anywhere in the world, and also forward copies of the fax to any other fax machine.

26.1 Configuring the System for FaxMail

When you set up the Fax Distribution module to equip the VP system for sending fax documents, you configure the feature for SAME CALL faxing or CALLBACK faxing. One of the considerations is whether or not the caller is on a line that is equipped with a companion fax board.

When equipping the VP system to receive fax documents, incoming FaxMail calls must always be able to access a fax board. There are three methods to accomplish this:

Options	Description
Set up the system to share fax ports	See section 23 for information on sharing fax ports. This is the recommended technique.
Install a fax board for each VP system port	On DOS-based systems, this is practical only for a system with up to four ports, since that is the maximum number of fax boards that can be installed.
Dedicate one or more ports for the FaxMail service	This requires you to publish a telephone number that callers dial to send a fax to a mailbox owner's mailbox. Incoming C.O. calls to this number terminate directly to dedicated VP system ports (ports not used for normal voice mail or automated attendant service).

26.2 Sending a FaxMail Document

As with any type of fax service, you must inform callers how to send faxes to mailboxes on the VP system. You can provide VP system callers any of the following sets of dialing instructions:

- Dial the telephone number, and send the fax immediately.
- Dial the telephone number, specify the mailbox, then send the fax.

- Dial the telephone number, specify the mailbox, leave a voice message, then send the fax.

Each of these is described below.

Dial the Telephone Number, and Send the Fax

When the VP system answers a call, it can detect the fax tone from a sending fax machine and store the fax as a message in the FAX GENERAL DELIVERY mailbox. By default, this is mailbox 888. You can change this default in the configuration file VM.CFG using the FAX GENERAL DELIVERY option. For example, if you want these faxes to be stored in mailbox 4123, include the following line in the VM.CFG file:

FAX GENERAL DELIVERY = 4123

Dial the Telephone Number, Specify the Mailbox, then Send the Fax

Using this option, the caller would:

1. Dial the published number for the VP system and wait for it to answer.
2. Enter the mailbox number of the person to whom the fax should be sent.
3. Immediately press *8 to tell the VP system not to try to transfer to the extension associated with the mailbox number and to indicate a fax is to be sent.

> **Note:** Consult section 7.3.6 for information on the transfer bypass feature. On some systems, the transfer bypass digit * may need to be dialed prior to the mailbox number.

4. Press START on the fax machine when prompted.

The VP system stores the fax document as a message in the mailbox.

Dial the Telephone Number, Specify the Mailbox, Leave a Voice Message, then Send the Fax

> **Hint**: If these dialing instructions are provided to callers, replace system prompt 155 with an "empty" file (see section 15 for this procedure). If you use the alternate "speed dialing" method described later in this section, this action is not necessary.

Using this option, the caller would:

1. Dial the published number for the VP system and wait for it to answer.
2. Enter the mailbox number of the person to whom the fax should be sent.
3. Immediately press * to tell the VP system not to try to transfer to the extension associated with the mailbox number, but to immediately take a message (see transfer bypass information in section 7.3.6). The VP system plays the mailbox owner's personal greeting.

> **Note:** Consult section 7.3.6 for information on the transfer bypass feature. On some systems, the transfer bypass digit * may need to be dialed prior to the mailbox number.

4. Press 7 to indicate he/she wants to record a voice message and send a FaxMail message.
5. Record a voice message when prompted. This is typically a short description of the FaxMail document being attached to the message.
6. Press # when he/she has finished speaking.

7. Press START on the fax machine when prompted.

The VP system stores the fax message and voices message in the specified mailbox.

26.3 Retrieving Documents from a Mailbox

Mailbox owners are notified of FaxMail messages the same way they are notified of voice mail (via message waiting lamps, paging, and message delivery). When mailbox owners call in to retrieve their messages, they are informed of any new FaxMail messages are also in their mailbox. After logging in to a mailbox, the mailbox owner hears a prompt such as, *"You have 4 news messages. There are fax documents with 2 of your new messages."*

The mailbox Main menu then plays, *"To listen to your messages, press 1. To send a message, press 2..." etc.*

If you press 1 to listen to messages, the VP system voices any message recorded with the FaxMail then plays the following message retrieval options:

"If you would like to select this document to be retrieved during this call, press 7. To replay the message, press 1. To save and hear the next message, press 2. To save this message as new, press 3..." etc.

Select from the options:

- Press 7 to "tag" the document for retrieval at this time.
- Press 2 to move on to the next new message. The FaxMail document is retained as a saved message and remains in the mailbox for retrieval at a later time (if the mailbox class of service is set to automatically delete old messages after a certain number of days, FaxMail documents are also be deleted after that time).
- Select any other valid option from this menu (forward a copy of the FaxMail message to another mailbox, for example).

If you press 7 to mark this FaxMail document for retrieval, you must indicate whether the document is to be retrieved during the same call or after the VP system calls back a number you indicate. Each of these options is described below.

Same Call Retrieval

To retrieve a FaxMail message during the same call, you must be calling from a fax machine or must be on a line that is connected to a fax board (or fax-port sharing must be enabled). Also, the system must allow same-call fax retrieval (see the FAX SETUP screen). If same-call fax retrieval is allowed in the system, you hear the following prompt:

"*If you are calling from a fax machine, press 1."*

If you are calling from a fax machine and press 1, the VP system announces how many additional FaxMail documents you are allowed to request on this call (also set on the FAX SETUP screen). The system then plays the prompt:

"To receive the fax document at this time, press 1." Press 1 as instructed.

Next, you are prompted, *"Please press the start button on the fax machine*."

Note:	If the line you are connected to does not have a fax board attached, the VP system says, *"One moment please,"* and transfers you to a voice mail port that *does* have a fax board attached. The call then continues as normal. If there are no free fax-enabled ports, you are offered the option to hold until one becomes available.

The fax is transmitted.

Callback Retrieval

If you are not calling from a fax machine and you are not on a line that is connected to a fax board (and fax-port sharing is not enabled), you must arrange for the VP system to call a fax machine to deliver a FaxMail message after you exit the open mailbox. When the VP system asks, *"If you are calling from a fax machine, press 1; if not, press 2,"* press 2. The VP system prompts you to specify the phone number of a fax machine:

"Please enter the phone number of the fax machine now."

This telephone number can be located anywhere that is not restricted by the long-distance dialing plan. Once you enter a number, the VP system confirms the number, then plays:

"That fax will be sent when you hang up."

Next, the VP system announces how many additional FaxMail documents you are allowed to request on this call (set on the FAX SETUP screen). The system then plays the prompt:

"To replay the message, press 1.
To save and hear the next message, press 2.
*To save the message as new, pres*s *3. ...*" etc.

You may continue to play back any additional new messages. If you select any additional FaxMail documents for retrieval, the VP system does not repeat its request for sending information.

Once all messages are played, the mailbox owner then hears, *"You have no more new messages."*

Next, the mailbox Main menu plays:

"Main menu.
To listen to your messages, press 1.
To send a message, press 2.
To change your options, press 3. ..." etc.

Simply exit the mailbox at the Main menu. Once you disconnect, the VP system queues the fax to be sent to the callback number you entered.

26.3.1 SETTING UP A MAILBOX TO AUTOMATICALLY FAX DOCUMENTS TO A SPECIFIED NUMBER

Beginning with version 10.2 of Windows-based systems, you can configure a mailbox to automatically send FaxMail documents received in it to a specified fax number. The mailbox can be set to send FaxMail documents either immediately upon mailbox receipt or only after a certain number of FaxMail documents have been collected or time has passed.

To configure a mailbox to automatically send FaxMail documents to a specified number, complete the appropriate fields of the Message Delivery tab on the Mailbox screen.

26.4 Sending a FaxMail from an Open Mailbox

In addition to sending a FaxMail document as an outside caller (as described in section 25.2), a mailbox owner can also send FaxMail documents to other mailbox owners on the system from his/her open mailbox. Of course, the mailbox owner must be placing the call from a fax machine and be calling on a VP system port that is connected to a fax board connected (or fax-port sharing must be enabled).

To send a fax from within a mailbox, from the mailbox Main menu, press 2 to send a message. Record a brief message introducing the fax you are sending, then press # to end the recording.

The Sending Options menu plays:

"To send this message, press 1.
To replay the message, press 2.
To re-record the message from the beginning, press 3..."

Option 7 allows you to add a FaxMail document. If you press 7, you hear the system prompt:

"Please press the start/send button on your fax machine now."

To include the fax with the message you recorded, press the fax machine's START button and hang up.

26.5 Using New and Modified Prompts

26.5.1 USING NEW PROMPTS

The following new prompts are copied to the prompts directory when the FaxMail module is installed. By default, the prompt directory is \VM\P.

Prompt	Filename	Contents of Phrase
1112	FAXNOTE.VOI	"Please record a short description of your document."
1113	FAXFAIL.VOI	"I'm sorry, we are unable to receive your document at this time"
1114	HASFAX.VOI	"There are fax documents with"
1115	OFNEWMSG.VOI	"of your new messages."
1116	MSGISFAX.VOI	"This message contains a fax document."
1117	KEYTOTAG.VOI	"If you would like to select this document to be retrieved during this call, press 7."
1118	NOFAXAVL.VOI	"I'm sorry, all fax channels are busy right now. If you would like to wait until a channel becomes free, press 1."

1119	FAXIVR.VOI	"If you would like us to send you a fax copy of this information, press 1." *(used for sending a fax copy of information obtained via the IVR feature).*

26.5.2 MODIFYING EXISTING PROMPTS

The following prompts that are part of the standard VP system package must be modified to include the options for the FaxMail module. The phrase that needs to be added is shown below. A few of the most commonly used versions of these prompts have been pre-recorded and are described below. You can use these pre-recorded modified prompts by copying them onto the system, or you can re-record the prompts that must be modified using procedures detailed in section 15.

Prompt	Filename	Modification Required
3	mboxmenu.voi	*Add FaxMail option (number 7*): "...If you are calling from a fax machine and would like to send this party a fax, press 7..."
68	lstnmenu.voi	*Add FaxMail option (digit *):* "...To begin receiving the fax documents you have selected, press *..."
71	lnewsubm.voi	*Add FaxMail option (digit* *): "...To begin receiving the fax documents you have selected, press *..."
165	msgopcnf.voi	*Add FaxMail option (digit 7):* "...To add a Fax mail document to this message, press 7..."
260	mboxmen2.voi	*Add FaxMail option (digit 7):* "...If you are calling from a fax machine and you would like to send this party a fax, press 7..."

26.5.3 COPYING PRE-RECORDED MODIFIED PROMPTS

The following prompts were pre-recorded and can be used to replace the existing prompts supplied with the standard VP system software package. By default, these prompts were copied to the \VM\P directory when the Fax Distribution module was installed. Pre-recorded modified prompts have the same filenames as their corresponding standard prompts, but they use a different file extension.

To copy a modified prompt to the active system, follow these steps:

1. Shutdown the VP system if it is currently running.
2. Locate the prompt you want to use in the following table and make a note of the filename.
3. Copy the file over the prompt with the .VOI file extension. (You may want to first rename the .VOI prompt an extension .OLD, so if you ever want to revert back to it, the prompt is still available.) For example, to replace the existing prompt 3 with MBOXMENU.OP2, access a command prompt and type the following command:

`COPY \VM\P\MBOXMENU.OP2 \VM\P\MBOXMENU.VOI` then press <Enter>

4. When you finish modifying prompts, re-start the VP system.

Prompt	Filename	Contents of Phrase
3	mboxmenu.op2	"If you would like to leave a message, press 1. If you would like to try another extension, press 3. If you are calling from a fax machine and would like to send this party a fax, press 7. Or, to speak to an operator, press 0."
3	mboxmenu.op3	"If you would like to leave a message, press 1. If you would like to try another extension, press 3. To have your call announced over our P.A. system, press 5. If you are calling from a fax machine and would like to send this party a fax, press 7. Or, to speak to an operator, press 0."
260	mboxmen2.op2	"If you would like to leave a message, press 1. If you would like to have your party paged, press 2. If your would like to try another extension, press 3. If you are calling from a fax machine and you would like to send this party a fax, press 7. Or, to speak to an operator, press 0."
260	mboxmen2.op3	"If you would like to leave a message, press 1. If you would like to have your party paged, press 2. If you would like to try another extension, press 3. To have your call announced over our P.A. system, press 5. If you are calling from a fax machine and would like to send this party a fax, press 7. Or, to speak to an operator, press 0."
68	lstnmenu.op1	"Message menu. To listen to new messages, press 1 To listen to saved messages, press 2. To begin receiving the fax documents you have selected, press *. Or to return to the main menu, press #."
71	lnewsubm.op1	"To replay the message, press 1. To save and hear the next message, press 2. To save the message as new, press 3. To delete the message, press 4. To hear the time and date of the message, press 5. To forward a copy of this message to someone else, press 6,1. To reply to this message, press 6, 2. To transfer to this party, press 6, 3. To begin receiving the fax documents you have selected, press *. Or, to return to the main menu, press #."

Prompt	Filename	Contents of Phrase (Continued)
165	msgopcnf.op2	"To send this message, press 1. To replay the message, press 2. To re-record the message from the beginning, press 3. To cancel the message, press 4. If you would like to be notified when your party has received this message, press 5. To send this message to several mailboxes, press 6. To add a Fax mail document to this message, press 7. To schedule this message to be sent at a future time and date, press *."
165	msgopcnf.op3	"To send this message, press 1. To replay the message, press 2. To re-record the message from the beginning, press 3. To cancel the message, press 4. If you would like to be notified when your party has received this message, press 5. To send this message to several mailboxes, press 6. To add a Fax mail document to this message, press 7. To resume recording from the point where you stopped, press 8. To play back the last few seconds of your message, press 9. To schedule this message to be sent at a future time and date, press *."

27. USING THE IVR MODULE

Note:	Refer to instructions in section 23 for information on installing the IVR module on VP systems.

27.1 What is IVR?

Interactive Voice Response (IVR) is a feature that allows a caller to enter a number that the VP system uses to search a database. Typical applications are banking-by-phone, where a caller enters an account number to hear his/her balance, and inventory-stocking, where a caller enters a part number to hear whether or how many of a certain part are in stock.

27.2 Setting Up an IVR Box

27.2.1 WHAT DOES AN IVR BOX DO?

An IVR box collects caller input then conducts the database search. To allow a caller to use an IVR application, you simply route the call to an IVR box.

When a call routes to an IVR box, the VP system prompts the caller to input answers to one or several questions, then uses the input to conduct the database search. If the IVR box finds a database record that matches the inputs given by the caller, it reads the appropriate information from the database. (If several matching records exist, you can specify how many of them the VP system is to read to the caller).

The database must be a text file with one record per line. Fields within a record can be separated using any delimiter. If you have an existing database (for example, one stored in dBase or Oracle), you can often use the existing database management tools to export the data as a text file.

When a call is routed to an IVR box, it follows the actions shown in Figure 26-1 Typical Operation of an IVR Box.

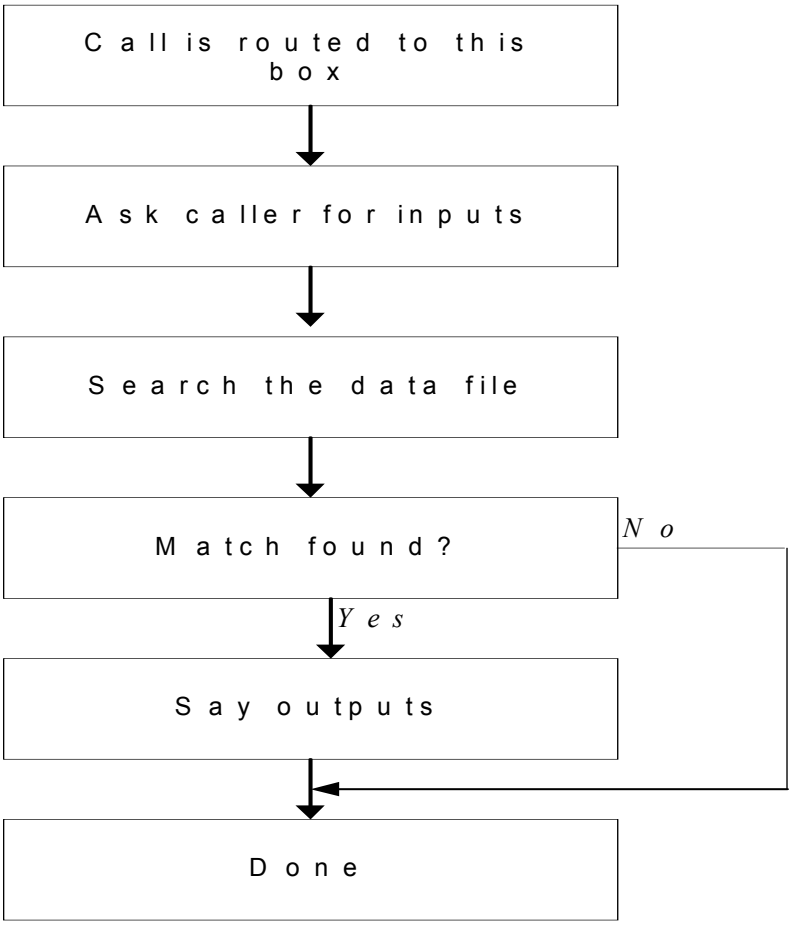


Figure 26-1 Typical Operation of an IVR Box

27.2.2 ACCESSING THE IVR BOX SCREEN

Note:	Refer to section 29 for graphical illustrations of all VP system screens.

To access the IVR box screen through the DOS-based VP system screen interface:

1. From the LINE STATUS screen, press <F10>. The Main menu displays and you are prompted to enter a system password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Customer level passwords on the GENERAL INFORMATION screen.
3. From the Main menu, select BOX INFORMATION. The Box Information menu displays.
4. Select the OPTIONAL FEATURES option, then from the menu that displays, select IVR BOX. When you have made necessary modifications to the screen, press <F10> to save the changes. You return to the Box Information menu.

To access the IVR box screen through the Windows-based VP system screen interface:

1. From the Windows desktop, double-click the DATABASE ADMINISTRATOR icon. You are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Administrator level passwords on the GENERAL INFORMATION screen.
3. Access the BOXES pull-down menu.
4. Select the OPTIONAL FEATURES option, then from the menu that displays, select IVR BOX. When you have made any necessary modifications to the screen, click on the Save icon on the screen. You return to the main screen.

Note:	Field names and screen descriptions for both DOS-based and Windows-based systems screens are presented in this section. Each field description identifies the field name used in both types of products. Be advised that due to differences in the screen design between DOS-based and Windows-based systems, the placement of fields on several screens vary slightly. All fields on all screens *are* discussed in this section.
Note:	**To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.**

27.2.3 IVR BOX FIELD DESCRIPTIONS

Be advised that due to differences in the screen design between DOS-based and Windows-based systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

On DOS-based systems, the IVR BOX screen consists of 3 pages:

- Page 1 contains general setup information and information about the data file.
- Page 2 is used to set up the input questions, and to set up the database search criteria.
- Page 3 is used to define how the output should sound when played back to the caller.

On Windows-based systems, this information is housed on five tabs you can access on the IVR BOX screen.

Fields used in DOS-based systems are prefaced below with **DOSVP**, and fields used in Windows-based systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

Several field descriptions discuss setting fields to YES or NO settings. In Windows-based systems, this equates to checking or un-checking the field's checkbox, which you do by clicking on it.

DOSVP:Box Number *(Page 1, Page 2, Page 3, Page 4)*
WINVP:Box Number

This is the IVR box number. A box number can be anywhere between 1 and 9899 (boxes 9900 - 9999 are reserved for the system). You cannot change the box number on the screen. To view a new box, use <F4> (select a box number), <F5> (previous IVR Box), or <F6> (next IVR Box). To add a new IVR box, use <F2> (add). (Windows-based VP system users can also select from icons at the top of the screen.)

DOSVP:Box Name *(Page 1 screen)*
WINVP:Box Name

This field identifies the name of the IVR box. The name is used for administration purposes only, and it appears in the database listing.

> **Note**: By default, the VP system finds only the first matching record, and reads it to the caller. If you want the VP system to read more than one matching record to the caller, enter the number in the field THEN SEARCH FOR X MORE MATCHING RECORDS (see below).

DOSVP:Greeting Recorded *(Page 1 screen)*
WINVP:Record Greeting button

This field identifies whether a greeting has been recorded for the IVR box. On Windows-based systems, an existing recording is signified by a red light displaying on the button.

The greeting is played as soon as a caller is routed to the IVR box.

On DOS-based systems, when you bring the cursor into this field, a menu appears, offering the option to play, delete, copy, or record the greeting. By selecting RECORD you can record the greeting via a telephone line connected to the voice processing board. To record the greeting, select RECORD, press <Enter>, and call into voice mail line 1. When voice mail answers, select RECORD and speak the greeting. To end the recording, press <Enter> again. To hear the recording, select PLAY.

On Windows-based systems, you can record the greeting by clicking on the Record Name button, then using the controls on the Sound Recorder dialog box. At the lower-right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

The greeting can also be recorded remotely by the owner of the IVR box. Note that once an IVR box has been assigned an owner, the IVR box is allowed the same number of greetings as the owner mailbox, as defined in the mailbox's assigned class of service. The greetings are numbered 0 through 9.

DOSVP:Owner *(Page 1 screen)*
WINVP:Owner

This field contains the mailbox number of the *owner* of the IVR box. The owner has the ability to call in to the system to re-record the IVR box greeting or select a different active greeting. If you do not want to offer the option to re-record the greeting remotely, or not more than one greeting is needed for this IVR box, leave this field blank.

DOSVP:Max Secs Between Digits *(Page 1 screen)*
WINVP:Max Time to Wait Between Digits X Seconds

When the caller is entering digits (for example, his/her credit card number), the VP system does not know in advance how many digits the caller is to enter. If the caller pauses for the number of seconds listed in this field, the VP system assumes that he/she has finished dialing. For example, assume this field is set to **3**. If the caller enters 5551111 and then pauses for 3 seconds, the VP system assumes the number the caller attempted to dial is 5551111. (To allow callers to immediately precede (without pausing) after entering the requested number, instruct them to press # after entering the requested digits. For example, record the box greeting as, *"Please enter your credit card number, followed by the pound key.")*.

DOSVP:Bail-out Digits *(Page 1 screen)*
WINVP:Bail-out Digits

Bail-out digits allow a caller to cancel the IVR request. If the caller presses the digit(s) listed in this field, the VP system takes whatever action is specified in the field IF MATCH NOT FOUND.

Note:	Although any digit 0 - 9, *, and # can be used as bail-out digits, it is recommended you do not use a single #. In other parts of the VP system, # is used as an "end of dialing" digit that allows frequent callers to speed the processing of their call.

DOSVP:If Account Number Not Yet Entered *(Page 1 screen)*
WINVP:If Account Number Not Yet Entered area

If you do not intend to use a number previously collected during the call by an Account Number box to search the database, choose CONTINUE here.

If you intend to use a number collected by an Account Number box to search the database, and the number has not yet been collected, the VP system cannot perform the search. To accommodate these situations, choose GO TO BOX here and specify an Account Number box in the next field. The VP system routes the call to that Account Number box and prompts the caller to enter a specific number. You must then route the call from the Account Number box back to this IVR box on the ACCOUNT NUMBER BOX screen.

DOSVP:Box *(Page 1 screen)*
WINVP:(Unlabeled Box field)

This field is valid only if the option in the corresponding field is set to GO TO BOX. Enter the box to which the call is to route if the caller has not entered a number in an Account Number box.

DOSVP:Filename *(Page 1 screen)*
WINVP:Name of File Containing Data *(Data File tab)*

This field contains the name of the database file containing the data. The VP system searches this file. The file should be in regular text format, with one record per line. Fields within a record can be separated using any delimiter. If you do not include a path in the filename, the VP system assumes the file is in the VP system directory. By default this is \VM. (Windows-based VP system users can select the Review File button to view and edit the source file.)

DOSVP:Delimiter Between Fields *(Page 1 screen)*
WINVP:Delimiter Between Fields *(Data File tab)*

The file containing the data should be in regular text format, with one record per line. Fields within a record can be separated by any sequence of characters (this character sequence is called a *delimiter*). Enter the delimiter characters here.

If the fields are separated by spaces, use the underline character (_) to represent spaces.

DOSVP:Field Types *(Page 1 screen)*
WINVP:Field X is *(Data File tab)*

Each field in a record represents a specific type of information (for example, money or a date). Enter the type of data each field represents. This information is used by the VP system in two ways:

When comparing the data input by the caller with the data in the file.

When deciding how to voice the data in a field. For example, if a field contains the number 121956, Table 26-1 How the VP system Interprets a Field Containing 121956 shows how the VP system reads the contents of the field to the caller.

Field Type	How the VP system Interprets 121956	How the VP system Reads 121956 to the Caller
nothing		The VP system says nothing.
digits	1-2-1-9-5-6	“One-two-one-nine-five-six”
number	121,956	*“One hundred twenty-one thousand, nine hundred fifty-six”* (Note that negative numbers are also allowed, for example -123)
money	$121,956.00	“One hundred twenty-one thousand, nine hundred fifty-six dollars, and no cents”
date	12-19-1956	“December 19, 1956”
time	12:19:56	“Twelve-nineteen PM”
text	Not applicable.	The VP system reads the text in the field using the text-to-speech reader feature. Note that fields specified as text should contain a maximum of 20 characters (including any spaces).

text file	Not applicable.	The VP system looks for a file with the name 121956.TXT (in the directory where greetings are stored). If it finds that file, it reads back the content using the text-to-speech reader.
voice file	\VM\M\121956 or \VM\M\121956	The VP system looks for a file with the name 121956 (in the directory where the greetings are stored). If it finds that file, it assumes it is in voice file format, and it plays the file.

Table 26-1 How the VP system Interprets a Field Containing 121956

Note: If you are using the VOICE FILE or TEXT FILE type, you can tell the VP system that the voice or text files are stored in another directory by using the IVRVOICEFILEPATH parameter in the configuration file VM.CFG. See section 12 for more information on the configuration file.

Note: If you are using the VOICE FILE or TEXT FILE type in a multi-lingual system, record each language version of the voice file. Give the voice files the same name, but end each with the language number. For example, if you want to record the word "blue" in English (Language 1), French (Language 2), and Spanish (Language 3), name the files BLUE.VO1, BLUE.VO2, and BLUE.VO3, respectively.

In the IVR data file, use the filename BLUE.VO#. The trailing # tells the VP system to insert the language number that the caller is currently using.

Note: If you are using the VOICE FILE type, and you want to send a fax confirmation of the results of the database search (see below), create a text file containing a written version of the voice file, and name it the same name as the voice file but with the extension .TXT. For example, if you recorded a voice file containing the word "blue," and called the voice file BLUE.VOX, create a text file in the same directory and name it BLUE.TXT. This file contains the text "blue." When the VP system assembles the information to create the fax, it inserts the contents of the BLUE.TXT file instead of the contents of BLUE.VOX.

DOSVP:Prompt for Input # Recorded *(Page 2 screen)*
WINVP:Record Input # button *(Recording Inputs tab)*

This field indicates whether an input prompt has been recorded. On Windows-based systems, an existing recording is signified by a red light displaying on the button.

The VP system can prompt the caller to enter up to 5 groups of digits, which it uses to search the database file. The VP system plays the prompts you record in each of these fields in turn, and stores the information entered by the caller as Input 1, Input 2, Input 3, Input 4, and Input 5.

> **Note** Use the NOTE fields to enter a brief description of the purpose of each input prompt. These fields are not used by the VP system, they are there for your use only.

If you are searching the database based only on a number collected by an Account Number box, do not use these fields—simply route the call to the Account Number box.

On DOS-based systems, when you bring the cursor into this field, a menu appears, offering the option to play, delete, copy, or record the prompt. By selecting RECORD you can record the prompt via a telephone line connected to the voice processing board. To record the prompt, select RECORD, press <Enter>, and call into voice mail line 1. When voice mail answers, select RECORD and speak the prompt. To end the recording, press <Enter> again. To hear the recording, select PLAY.

On Windows-based systems, you can record the prompt by clicking on the Record Input button, then using the controls on the Sound Recorder dialog box. At the lower-right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

DOSVP:A Record Matches if... *(Page 2 screen)*
WINVP:A Record Matches if field *(Searching tab)*

After collecting the required inputs, the VP system begins searching through the database file, one record at a time, until it finds a matching record. These fields tell the VP system what constitutes a matching record. For example, if the caller entered his/her Social Security Number as Input 1 above, and the database file contains records in which field 3 is a Social Security Number, you define the match as:

FIELD 3isEQUAL TOINPUT 1.

If the caller is also asked for his/her personal identification number (PIN) as Input 2 above, and field 6 of the database file contains PIN numbers, you can define a match as occurring only when both the Social Security Number and PIN entered by the caller match those in the database file. Do this by defining a match as:

```
FIELD 3isEQUAL TOINPUT 1
andFIELD 6isEQUAL TOINPUT 2
```

DOSVP:Output Phrase # Recorded *(Page 3 screen)*
WINVP:Output Phrase # Recorded *(Recording Outputs tab)*

Once a matching record has been found, the VP system constructs sentences to voice the required information to the caller. These sentences are built from elements including:

- The fields of the database file
- The account number stored for the call
- Pre-recorded phrases

Use these fields to generate any pre-recorded phrases you need.

The VP system plays each of these input prompts in turn, asking the caller for information. The information entered by the caller is stored as Input 1, Input 2, Input 3, Input 4, and Input 5.

On DOS-based systems, when you bring the cursor into this field, a menu appears, offering the option to play, delete, copy, or record the phrase. By selecting RECORD you can record the phrase via a telephone line connected to the voice processing board. To record the phrase, select RECORD, press <Enter>, and call into voice mail line 1. When voice mail answers, select RECORD and speak the phrase. To end the recording, press <Enter> again. To hear the recording, select PLAY.

On Windows-based systems, you can record the phrase by clicking on the Record Output button, then using the controls on the Sound Recorder dialog box. At the lower-right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

The phrases are stored as PHRASE 1 through PHRASE 5, for use below.

Note:	Use the NOTE fields to enter a brief description of the output phrase. For example, you may enter “Your balance is” in this field. The VP system copies the contents of the NOTE fields into a fax document, if you are using the fax confirmation feature as described below.

DOSVP:If Match Found, Say... *(Page 3 screen)*
WINVP:If Match Found, Construct… *(Playing Results tab)*

Once the VP system finds a matching record, it looks in these fields to determine what it should say to the caller. For example, if you want to say Output phrase 1 (recorded above), followed by the contents of Field 4 of the database, you select PHRASE 1 and under it, FIELD 4 here.

DOSVP:And then Search for X More Matching Records *(Page 3 screen)*
WINVP:Then Search for Up to X More Matching Records *(Playing Results tab)*

Once the VP system has found a matching record and voiced all the information you defined above, it repeats this process until it has found and reported as many records as you specify in this field.

DOSVP:And then *(Page 3 screen)*
WINVP:And then *(Playing Results tab)*

Once the VP system has found a matching record and voiced all the information you defined above, it examines this field to decide what it should do next. The options are:

Option		Description
RETURN		Go back to the box that routed the call to this IVR box.
SAY GOODBYE		Say, “Goodbye,” and then hang up.
HANG UP		Hang up immediately.
GO TO	BOX n	Go to the box n specified.

	FIELD n	Read field n from the data file, and interpret it as a box number. Go to that box.
TRANSFER TO	BOX n	Go to the box specified (same as GO TO BOX).
	FIELD n	Read field n from the data file, and interpret it as a telephone number. Transfer the call to that number.
SEND FAX TO	BOX n	Collect the output information into a fax document. Place the document in Fax box n, then route the call to that Fax box. (Requires the optional Fax Distribution module).
	FIELD n	Collect the output information into a fax document. Read field n from the data file, and interpret it as a fax telephone number. Send the fax document to the fax telephone number. (This option uses the IVR fax distribution box 9986, so ensure you set up Fax box 9986 when using this feature. You must also have the optional Fax Distribution module).

DOSVP:If Match Not Found *(Page 3 screen)*
WINVP:If No Match Found *(Playing Results tab)*

If the VP system does not find a matching record in the database, it looks here to determine what to do next. Typically, you send the call to a Routing box, whose greeting tells the caller that the search was unsuccessful and offers other call routing options.

DOSVP:Box *(Page 3 screen)*
WINVP:(Unlabeled Box field) *(Playing Results tab)*

This field is only used if the option in the corresponding field is set to GO TO BOX. This field is usually a Routing box, whose greeting tells the caller that the search was unsuccessful and offers other call routing options.

27.3 Using Custom Prompts for IVR

When playing the results of an IVR search, the VP system creates its response by playing a combination of pre-recorded system prompts (for example, *"dollars*," "*July*," etc.), which are included in the VP system, and custom phrases (for example, "*That order was shipped on..."*), which are recorded by the installer or customer. Since different people record these sets of voice files, the voiced output that results may not sound professional.

You can re-record system prompts that IVR uses. During normal call processing, the VP system uses the default system prompts. When processing an IVR box, it uses these re-recorded, custom system prompts.

27.3.1 SETTING UP CUSTOM PROMPTS

In the VM.CFG configuration file, add the following line:

IVR PROMPT LANGUAGE = 9

Record the following system prompts in Language 9 (see section 15):

Prompt	Contents
8	“Zero”
9 through 17	“One” ... “Nine”
21	“AM”
22	“PM”
23 through 44	“Ten” ... Thirty-one”
45	“Forty”
46	“Fifty”
47 through 58	“January” ... “December”
78	“No”
85	“And”
191	“Sixty”
192	“Seventy”
193	“Eighty”
194	“Ninety”
195	“Hundred”
196	“Thousand”
213	“Dollars”
214	“Cents”
216	“Million”
220	“Oh”
262	“Point”
273	“Negative”

27.4 Setting Up an IVR Application

To set up any IVR application, you follow these general steps:

1. Determine what inputs you require.

2. Determine what the caller should hear.
3. Create the data file.
4. Create the IVR box.
5. Set up the inputs.
6. Set up the outputs.

Each of these steps is described in detail in the example below.

Step 1: Determine What Inputs You Require

In this example, the caller must be prompted for his/her savings account number and PIN number.

> **Note:** We will use the term *savings account number* here instead of just *account number*. As discussed throughout this manual, the account number can be used for several purposes, including IVR. For clarity, however, the VP system account number feature is *not* used in this example.

Step 2: Determine What the Caller Should Hear

In this example, the VP system will be set up to inform the caller what his/her current balance is and when this information was last updated.

Step 3: Create the Data File

The VP system reads text files. For this example application, each line of the text file must contain one database record. Within each record, fields can be separated by any delimiter. In this example, a comma is used as the delimiter.

The data file for this application must include the following fields:

- A savings account number.
- A PIN number.
- The date that the information was updated.
- The savings account balance.

The file format is as follows:

Field 1: Savings account number
Field 2: PIN number
Field 3: Date
Field 4: Balance

The file is named EXAMPLE.IVR. An example of the data file is shown in Figure 26-2 Format of Sample Data File2.

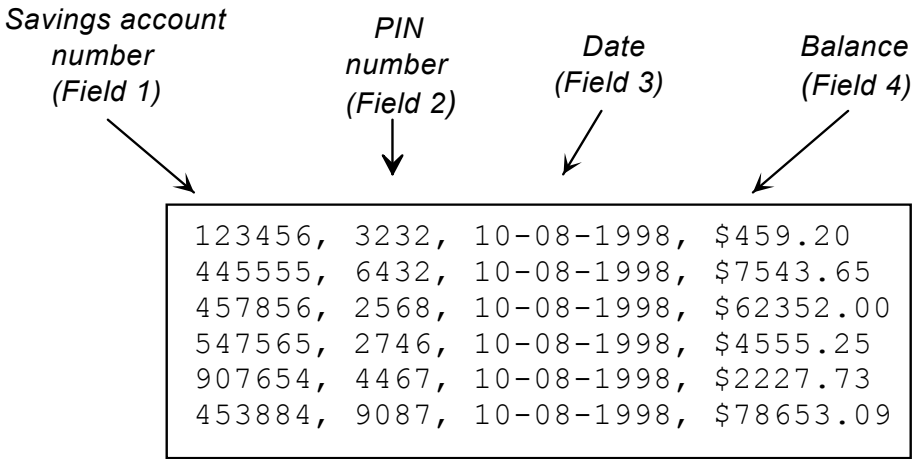


Figure 26-2 Format of Sample Data File

In the data file, note that:

- Spaces are ignored
- The dollar sign is optional in money fields
- Dates can be entered as shown above, or without the dashes

Step 4: Create an IVR Box

IVR Box 5555 is created for this application example. The name of the source file containing the database data is specified as EXAMPLE.IVR.

In the FIELD TYPES fields (DOS systems) / FIELD 1 IS x field (WIN systems), field 1, a savings account number (see Figure 26-2 Format of Sample Data File2), is typed DIGITS. Field 2, the PIN number, is also typed as DIGITS. Field 3, the date of the last update, is typed as DATE. Field 4, the balance, is typed as MONEY.

Step 5: Set Up the Inputs

In this example application, two inputs are to be collected from callers: the caller's savings account number and the PIN number. Input 1 will be used for the savings account number, and Input 2 for the PIN number.

The prompt for input 1 is recorded as:

"Please enter your savings account number."

The prompt for input 2 is recorded as:

"Please enter your PIN number."

Later, when a caller responds to these prompts by entering his/her savings account number and PIN number, the VP system stores the numbers as Input 1 and Input 2, respectively. It then searches through the data file, looking for a record that matches these inputs.

Refer back to the data file in Figure 26-2 Format of Sample Data File2. The VP system must be set up to determine it finds a database match if the first field in the data file matches the savings account number entered by the caller, and the second field in the data file matches the PIN number entered by the caller.

Think of this as *A record matches if Field 1 of the data file is equal to Input 1 (the caller's savings account number), and Field 2 of the data file is equal to Input 2 (the caller's PIN number).*

To set up this rule in the IVR box, in the first A RECORD MATCHES IF field, the option FIELD 1 is selected. The next field is set to EQUAL TO. The final field is set to INPUT 1. This line now reflects the rule *A record matches if Field 1 is equal to Input 1.* The next line on this screen is set to FIELD 2 followed by EQUAL TO followed by INPUT 2. This completes the rule setup.

Step 6: Set Up the Outputs

When a match is found, the VP system generates two outputs, the caller's balance and the date on which the information was last updated. This information must be properly voiced in the following format.

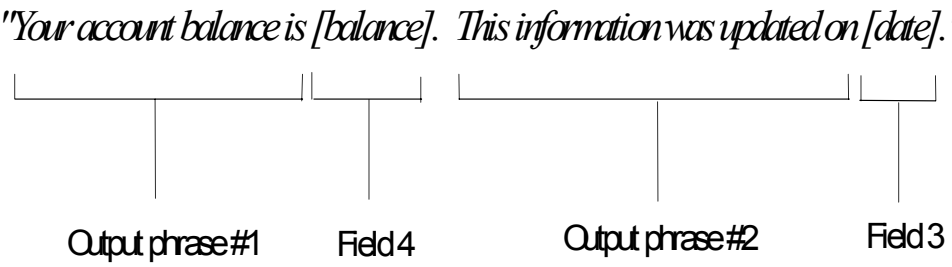
"*Your savings account balance is [balance].* This information was updated on [date]."

To construct the above sentences, the following phrases must be recorded:

"Your savings account balance is" and *"This information was updated on"*

The first phrase is recorded in the IVR Box as output phrase 1 and the second as output phrase 2.

The IVR box is set up to play these phrases and the database values they relate to using the fields IF MATCH FOUND…



The first pair of fields (top and bottom) are set to PHRASE 1 ("*Your savings account balance is")* and FIELD 4. The VP system now knows to say, *"Your savings account balance is"* and then read the contents of Field 4 from the data file (see Figure 26-2 Format of Sample Data File2).

The second pair of fields (top and bottom) are set to PHRASE 2 and FIELD 3, respectively. The VP system now knows to say, *"Your savings account balance is,"* followed by the balance from Field 4 of the data file, followed by *"This information was updated on,"* followed by the contents of field 3 of the data file (see Figure 26-2 Format of Sample Data File2).

Once the VP system is set up to convey information to the caller, the remaining fields on the IVR BOX screen must be completed to inform the VP system:

- What it is to do next after saying the information to the caller
- What it is to do if no match is found in the database file

27.5 Speeding Searches Using Indexed Files

It takes the VP system about 2 seconds to search through 1000 records in an IVR data file on a 386-33DX PC running SMARTDRIVE. If you have an IVR data file containing several thousand records, you may find that the VP system takes several seconds to perform database searches. To set up the system to process the data files more efficiently (processing 100,000 records in 3 seconds), follow these steps:

1. Using the database software (or some other third-party application), sort the data file into ascending order, based on the key field (the field that is most likely to be used during database searches).
2. Rename the file so that it has the extension .IDV. This extension informs the VP system that the file is sorted.
3. Run the VRBINDEX program. VRBINDEX generates an index file. The index file has the same name as the data file, but it has the extension .IXV.
4. Copy both the data file and the index file to the directory where you normally store the data files.
5. Run the VP system. In the IVR box, enter the name of the data file (with the .IDV extension).

27.5.1 RUNNING VRBINDEX

If you run VRBINDEX with no parameters, you are prompted for any information required. You can run VRBINDEX with no parameters by opening a command prompt window, typing VRBINDEX then pressing <Enter> from the \VM directory prompt.

If you want to run VRBINDEX in a batch file, you can supply information on the command-line as follows:

VRBINDEX -F(filename) -D(delimiter) -K(key-field)

For example, if you have a data file PRICES.IDV, which is comma-delimited, and the sorted field is field 4 (note that the fields are numbered 0, 1, 2, 3…), type the following line at the DOS prompt to generate an index:

VRBINDEX -FPRICES.IDV -D, -K4

An index file PRICES.IXV is generated.

27.5.2 NOTES ON DELIMITERS

DOS does not allow the double-quote character as part of the information passed on the command-line. If the data file uses quotes as part of the field delimiter, use the letter **q** on the command-line to represent the quotes. For example, if the data file is PRICES.IDV and the records are in quotes-comma-quotes format, enter the following line:

VRBINDEX -FPRICES.IDV -Dq,q -K4

If the data file uses spaces as the field delimiter, use a single underscore character on the command-line to represent any number of spaces. For example, if the data file is PRICES.IDV and the fields are separated by spaces, enter the following line:

```
VRBINDEX -FPRICES.IDV -D_ -K4
```

28. USING THE TALKING CLASSIFIEDS MODULE

Note:	Refer to instructions in section 23 for information on installing the Talking Classifieds module on VP system systems.

The Talking Classifieds module allows you to set up voice databases. Callers can then choose one of these databases and selectively search it based on the answers they input to question prompts.

The Talking Classifieds module adds the following features to the VP system:

- **Listing boxes:** Offer the ability to build a voice database of listings that can be searched by callers.
- **Talking Classifieds reports:** Provide details regarding which Listing boxes were accessed by callers and who listened to them.
- **Password-protected remote access to Listing boxes:** Allows an agent (the person who owns the Listing box) to call in to the VP system and change the recording or alter details about the listing (the *categories*).
- **Automatic allocation of mailboxes:** Allows customers to place their own classified listings without the aid of an administrator.

28.1 Setting Up a Talking Classifieds Application

To set up a Talking Classifieds application, you use two types of boxes on the VP system:

- Gateway box (this can be thought of as a heading in the Classifieds section of a newspaper)
- Listing box (this can be thought of as a single advertisement under a heading in the Classifieds section of a newspaper)

You provide callers access to the Talking Classifieds module by routing calls to the Gateway Box. This box prompts the caller to answer questions that indicate the types of listings the caller is interested in. The caller answers the questions using the keys on his/her touch-tone telephone.

When the caller answers all the questions in the Gateway Box, the VP system searches through all the Listing boxes, looking for those that match the criteria specified by the caller when he/she answered the Gateway box questions. Each time a matching listing is found, the VP system plays the description recorded in the Listing box for that listing.

Example Talking Classifieds Application

Janet Smith is a Real Estate agent with several listings in her portfolio. A high percentage of her incoming calls are from prospective clients who want to know what is currently available in a given price range, area, etc.

Janet needs to screen these calls so she only has to speak to clients who are interested in one of her listings. The VP system Talking Classifieds module can perform this function.

First, Janet creates a database of her listings. The database is simply a group of Listing boxes, all associated with one Gateway box (see Figure 27-1 Layout of a Listing Box Database).

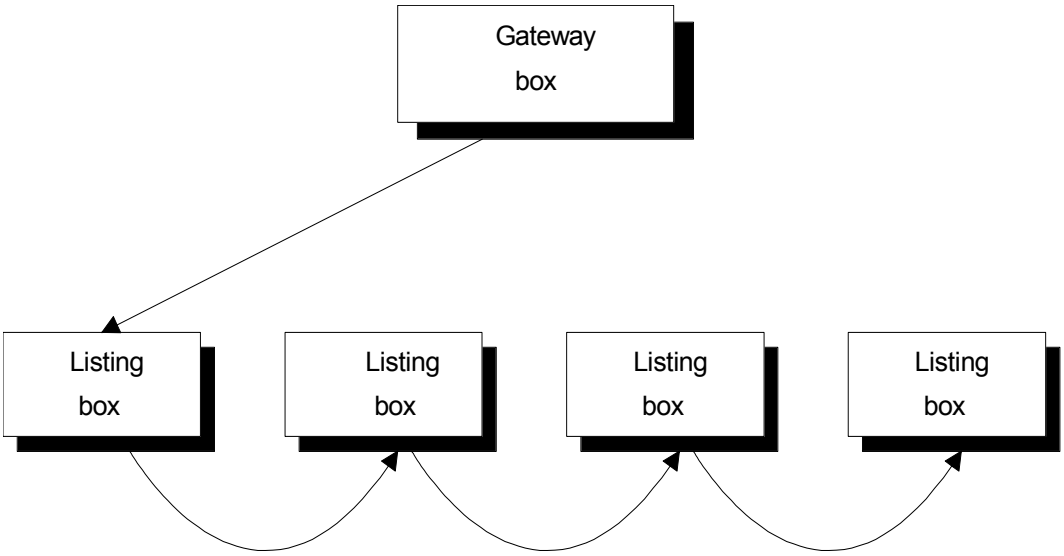


Figure 27-1 Layout of a Listing Box Database

To set up the Listing box database, Janet first creates a Gateway box (box 2000 in this example). Inside this Gateway box, she records a greeting and up to four questions that are used to help callers specify the type of home they are interested in.

She then creates several Listing boxes and associates each of these with Gateway box 2000. Inside each Listing box, she records a description of a particular listing and includes relevant information on the property: price range, area, number of bedrooms, and property type (condominium, single-family, duplex, etc.).

When a prospective client calls, the VP system answers and plays options Janet set up in a Routing box:

"Welcome to Janet Smith Realty. For your convenience, we are now offering automatic access to our home database. If you want to take advantage of this, press 1 now; otherwise, please stay on the line, and someone will be with you right away."

When the caller presses 1 to use the Talking Classifieds feature, the Routing box routes the call to Gateway box 2000. The greeting Janet recorded in box 2000 then voices:

"Thank-you.
To hear a sample of our current listings, press 1
or, to select a specific price-range, area, etc.,
press 2."

If the caller presses 1 at this point, the VP system accesses each Listing box associated with Gateway box 2000, playing in turn the description recorded in each one.

Assume, however, that the caller is only interested in 3-bedroom, single-family homes that are east of town and that cost less than $100,000. He/she presses 2 to make the selections. The VP system voices the first of four search-criteria questions Janet recorded in the Gateway box:

"For properties below $60,000, press 1.
For properties between $60,000 and $90,000, press 2.
For properties between $90,000 and $100,000, press 3.
For properties between $100,000 and $120,000, press 4.
For properties above $120,000, press 5.
To include all properties, regardless of cost, press #."

The caller presses 3 for properties between $90,000 and $100,000 (note that the caller can press 0 in response to any question if he/she wants to hear the question again). The VP system continues with the second of the four search-criteria questions in the Gateway box:

"For properties inside the city limits, press 1.
For properties in the Byrum Woods area, press 2.
For properties north of town, press 3.
For properties east of town, press 4.
For all other properties, press 5.
To include properties from all areas, press #."

The caller presses 4 for properties east of town. The VP system continues with question three:

"Using the keys on your telephone, please enter the number of bedrooms you require."

The caller enters 3, for 3 bedrooms. The VP system continues with the final question:

"For apartments, press 1.
For duplexes, press 2.
For single-family homes, press 3."

The caller presses 3. The interview is now complete.

The VP system looks at each of Janet's listings in turn and makes a note of those that match the specifications given by the caller. It then indicates how many matches it found:

"There are five listings that match your current choices. Press 1 to hear the listings, or press 2 to make new selections."

If the caller presses 1 (to hear the listings), the VP system plays the first matching listing, for example:

"This beautiful single-family home in the Falls Lake area has forty feet of water frontage and its own private dock – a real bargain at only $97,500. The owner is willing to negotiate."

Once the description is finished, the VP system offers the caller the following choices:

"To move on to the next listing, press 1.
To choose a new price-range, area, etc., press 2.
If you wish to speak to the listing agent, press 3.
If you would like us to contact you, press 4.
To hear this description again, press 5.
To exit, press star."

The caller chooses 1 for the next listing. The VP system plays the next matching listing:

"Overlooking the park, this modern single-family home..."

Again, the VP system offers the above choices at the end of recording. This time, the caller is interested in the house, and so he/she chooses 3, to speak to the agent.

The VP system looks at the Listing box database again to find the mailbox number of the agent who is responsible for the listing. It then calls the agent's office. If the call is answered, the VP system announces:

"This is Janet Smith's listing service calling. I have a prospect for you."

The VP system then transfers the call.

If the agent's line is busy, or does not answer, the VP system goes back to the caller and offers to take a message. If the caller leaves a message, the VP system can use the normal message notification features to call the agent's office or page the agent until the message is delivered.

28.2 Setting Up a Gateway Box

28.2.1 WHAT DOES A GATEWAY BOX DO?

Hint: Think of the Gateway box as a heading in the Classifieds section of a newspaper. Think of a Listing box as the individual advertisements under this heading.

To provide a caller access to the Talking Classifieds feature, you set up the VP system to route the call to the Gateway box. When the Gateway box takes the call it:

1. Plays the instructions to the caller.
2. Asks for the caller's name (if you enter the statement TCNAME in the VM.CFG configuration file: see section 12).
3. Offers to play all the listings in the associated Listing boxes or allows the caller to answer up to 4 search-criteria questions to narrow search.
4. Asks each of the 4 questions in turn, allowing the caller to enter specific information about his/her requirements.
5. (After all the questions have been asked and answered) Searches through all the Listing boxes, looking for those that are associated to the Gateway box and that match the specifications entered by the caller.
6. Tells the caller how many matching listings were found and offers the caller the option to listen to them or to make new selections.
7. (If the caller chooses to listen to the listings) Plays each Listing box description in turn.

At the end of each description, the VP system offers the option to:

- Go on to the next matching listing.
- Change the current selections. This option returns the caller to the questions recorded in the Gateway box.
- Contact the listing agent. This option routes the call to the box entered as the listing agent for this Listing box. This is typically a mailbox, but it can also be a Fax box or a Routing box.
- Mark the listing for more information (see section 27.5).
- Replay the listing.
- Exit.

When all the matching listings have been played, the VP system goes back to step 3.

28.2.2 ACCESSING THE TALKING CLASSIFIEDS GATEWAY BOX SCREEN

To access the Gateway box screen through the DOS-based VP system screen interface:

1. From the LINE STATUS screen, press <F10>. The Main menu displays and you are prompted to enter a system password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Customer level passwords on the GENERAL INFORMATION screen.
3. From the Main menu, select BOX INFORMATION. The Box Information menu displays.
4. Select the OPTIONAL FEATURES option. Then, from the menu that displays, select TC GATWAY. When you have made necessary modifications to the screen, press <F10> to save the changes. You return to the Box Information menu.

To access the Gateway box screen through the Windows-based VP system screen interface:

1. From the Windows desktop, double-click the DATABASE ADMINISTRATOR icon. You are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Administrator level passwords on the GENERAL INFORMATION screen.
3. Access the BOXES pull-down menu.
4. Select the OPTIONAL FEATURES option. Then, from the menu that displays, select TC GATWAY BOX. When you have made any necessary modifications to the screen, click on the Save icon on the screen. You return to the main screen.

Note:	Field names and screen descriptions for both DOS-based and Windows-based systems screens are presented in this section. Each field description identifies the field name used in both types of products. Be advised that due to differences in the screen design between DOS-based and Windows-based systems, the placement of fields on several screens vary slightly. All fields on all screens *are* discussed in this section.
Note:	**To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.**

28.2.3 GATEWAY BOX SCREEN FIELD DESCRIPTIONS

Be advised that due to differences in the screen design between DOS-based and Windows-based systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

Fields used in DOS-based systems are prefaced below with **DOSVP**, and fields used in Windows-based systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

Several field descriptions discuss setting fields to YES or NO settings. In Windows-based systems, this equates to checking or un-checking the field's checkbox, which you do by clicking on it.

DOSVP:Box Number
WINVP:Box Number

This field identifies the Gateway box number. It cannot be changed from this screen.

DOSVP:Gateway Name
WINVP:Box Name

This field identifies the name of the Gateway box. The name is used for administration purposes only, and it appears in the database listing.

DOSVP:Greeting Recorded
WINVP:Record Greeting button

This field indicates whether a greeting has been recorded for this Gateway box. On Windows-based systems, an existing recording is signified by a red light displaying on the button.

The greeting is played when the call first routes to this Gateway box. This greeting typically provides an introduction to the Talking Classifieds feature with some instructions on how it's used.

On DOS-based systems, when you bring the cursor into this field, a menu displays offering the option to play, delete, copy, or record the greeting. By selecting RECORD you can record the greeting via a telephone line connected to the voice processing board. To record the greeting, select RECORD, press <Enter>, and call into voice mail line 1. When voice mail answers, select RECORD and speak the greeting. To end the recording, press <Enter> again. To hear the recording, select PLAY.

On Windows-based systems, you can record the greeting by clicking on the Record Greeting button, then using the controls on the Sound Recorder dialog box. At the lower-right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

DOSVP:Question 1, 2, 3, 4 Recorded
WINVP:Record Question 1, 2, 3, 4 buttons

These fields indicate whether Questions 1 through 4 are recorded. On Windows-based systems, an existing recording is signified by a red light displaying on the button.

Questions 1 through 4 are played to the caller, to collect criteria from the caller that narrow the database listings selected for play. (For example, if the database contains information on used cars, the first question could ask callers to identify their target price-range: *"For cars under $1000, press 1. For cars between $1000 and $5000, press 2. For cars above $5000, press 3.")*

On DOS-based systems, when you bring the cursor into this field, a menu displays offering the option to play, delete, copy, or record the question. By selecting RECORD you can record the question via a telephone line connected to the voice processing board. To record the question, select RECORD, press <Enter>, and call into voice mail line 1. When voice mail answers, select RECORD and speak the question. To end the recording, press <Enter> again. To hear the recording, select PLAY.

On Windows-based systems, you can record the question by clicking on the Record Question buttons, then using the controls on the Sound Recorder dialog box. At the lower-right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

DOSVP:On Exit from Talking Classifieds Area
WINVP:On Exit

When the VP system plays a menu or a question, it expects a digit from the caller as a response. If the caller does not enter a digit, it usually indicates that he/she is confused or has disconnected. This field allows you to specify how you want the VP system to handle the call. It is recommended that you send the call to a Routing box that offers further assistance. Note that callers can exit from the Talking Classifieds area by pressing *.

DOSVP:Box
WINVP:(Unlabeled Box field)

This field is valid only if the option in the corresponding field is set to GO TO BOX. The field contains the box number to which the call is to be routed.

28.3 Setting Up a Listing Box

28.3.1 WHAT DOES A LISTING BOX DO?

Hint: Think of the Gateway box as a heading in the Classifieds section of a newspaper. Think of a Listing box as the individual advertisements under this heading.

The Listing box houses information on each individual listing. When a caller has answered the questions in the Gateway box, the VP system searches through all the Listing boxes associated with that Gateway box (in numerical order), looking for all that contain answer specifications that match the answers indicated by the caller in the Gateway box. If matches are found, the VP system prompts the caller to listen to the descriptions recorded in the Listing boxes.

28.3.2 ACCESSING THE LISTING BOX SCREEN

To access the Listing box screen through the DOS-based VP system screen interface:

1. From the LINE STATUS screen, press <F10>. The Main menu displays and you are prompted to enter a system password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Customer level passwords on the GENERAL INFORMATION screen.
3. From the Main Menu, select BOX INFORMATION. The Box Information menu displays.
4. Select the OPTIONAL FEATURES option, then from the menu that displays, select LISTING BOX. When you have made necessary modifications to the screen, press <F10> to save the changes. You return to the Box Information menu.

To access the Listing box screen through the Windows-based VP system screen interface:

1. From the Windows desktop, double-click the DATABASE ADMINISTRATOR icon. You are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Administrator level passwords on the GENERAL INFORMATION screen.
3. Access the BOXES pull-down menu.
4. Select the OPTIONAL FEATURES option, then from the menu that displays, select LISTING BOX. When you have made any necessary modifications to the screen, click on the Save icon on the screen. You return to the main screen.

Note:	**To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.**
Note:	Field names and screen descriptions for both DOS-based and Windows-based VP systems screens are presented in this section. Each field description identifies the field name used in both types of products. Be advised that due to differences in the screen design between DOS-based and Windows-based VP systems, the placement of fields on several screens vary slightly. All fields on all screens *are* discussed in this section.

28.3.3 LISTING BOX SCREEN FIELD DESCRIPTIONS

Be advised that due to differences in the screen design between DOS-based and Windows-based VP systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

Fields used in DOS-based VP systems are prefaced below with **DOSVP**, and fields used in Windows-based VP systems are prefaced below with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

Several field descriptions discuss setting fields to YES or NO settings. In Windows-based VP systems, this equates to checking or un-checking the field's checkbox, which you do by clicking on it.

DOSVP:Box Number
WINVP:Box Number

This field identifies the Listing box number. It cannot be changed from this screen.

DOSVP:Listing Agent
WINVP:Listing Agent

This field normally identifies the mailbox number of the agent who owns this listing. When a caller has heard the listing and chooses option 3 (to speak to the agent), the VP system routes the call to the box entered in this field. Although this is typically a mailbox, you could also enter a Fax box number or a Routing box number here.

DOSVP:Description
WINVP:Description

This field is used to provide a brief text description of the listing. In the case of a real estate application, for example, this field typically identifies the address of the property. This field is used in the Talking Classifieds report (see section 27.5*)*.

DOSVP:Notes
WINVP:Notes

This field allows you to specify additional notes about the listing.

DOSVP:Cross-Ref Number
WINVP:Cross-Reference Number

This field allows you to enter specific cross-reference information to cross-reference the listing to account numbers or other boxes. This field displays in the Talking Classifieds report.

DOSVP:Description Recorded
WINVP:Record Greeting button

This field indicates whether a description has been recorded for this Listing box. On Windows-based VP systems, an existing recording is signified by a red light displaying on the button.

In the case of a real estate application, for example, the recording is typically a description of the property. This is the information the caller hears while listening to the listings.

On DOS-based VP systems, when you bring the cursor into this field, a menu displays offering the option to play, delete, copy, or record the description. By selecting RECORD you can record the description via a telephone line connected to the voice processing board. To record the description, select RECORD, press <Enter>, and call into voice mail line 1. When voice mail answers, select RECORD and speak the description. To end the recording, press <Enter> again. To hear the recording, select PLAY.

On Windows-based VP systems, you can record the description by clicking on the Record Greeting button, then using the controls on the Sound Recorder dialog box. At the lower-right of the dialog, click on the circle button to begin recording. Click on the rectangle button (to the left of the circle button) to end the recording. See section 15 for more information on using the Sound Recorder dialog box.

DOSVP:Question 1, 2, 3, 4
WINVP:Category for Question 1, 2, 3, 4

The VP system uses these fields when searching through the Listing boxes, looking for those that match the caller's choices. In the real estate application example discussed earlier, question 1 prompts callers to indicate the price-range of interest.

Assume that the listing being entered in this Listing box has a price of $95,000.

Question 1 was recorded in the Gateway box as:

"*For properties under $90,000, press 1.*
For properties between $90,000 and $100,000, press 2.
For properties between $100,000 and $120,000, press 3.
For properties above $120,000, press 4.
To hear all listings regardless of price-range, press #."

The VP system must match this listing if the caller presses 2 (between $90,000 and $100,000) in response to question 1. You specify this match by entering **2** in the QUESTION 1 field here.

If you want the VP system to match on this listing regardless of the caller's response to question 1, enter **99** in this field(s). (If you are changing this value remotely, you indicate the 99 entry by inputting # as the value for the question. See section 27.4 for details).

DOSVP:Talking Classifieds Gateway Box
WINVP:Talking Classifieds Gateway Box

This field identifies the Gateway box with which this Listing box is associated.

28.4 Accessing a Listing Box Remotely

The owner of a Listing box can call in to the VP system from any touch-tone telephone and change the recorded description and/or categories for the Listing box. If the owner is a Routing box or a Fax box, then the owner of *that* box can perform the changes.

To access a Listing box remotely:

1. The box owner places a call to the VP system and opens his/her mailbox. The VP system plays the main menu:

"*To listen to your messages, press 1.*
To send a message, press 2.
To change your options, press 3.
Or, to exit, press #."

2. The box owner chooses option 3 to change options. The VP system plays the Options menu:

"To record your name, press 1.
To record your greeting, press 2.
To change your password, press 3.
To change your call transfer service, press 4.
To change your message notification service, press 5.
To change your pager service, press 6.
To exit, press #."

3. The box owner chooses option 2 to change greeting. The VP system asks the caller to indicate the number of the box whose greeting is to be changed.
4. The box owner enters the Listing box number. The VP system plays the current description, and offers the option to change it:

"To replay your greeting, press 1.
To re-record your greeting, press 2.
To delete your greeting, press 3.
To change the categories of a Listing box, press 4.
To exit, press #."

5. The box owner chooses option 2, to re-record the description and follows the prompts, speaking after the tone and pressing any key when he/she has finished. The VP system plays the greeting options again:

"To replay your greeting, press 1.
To re-record your greeting, press 2.
To delete your greeting, press 3.
To change the categories of a Listing box, press 4.
To exit, press #."

6. The box owner chooses option 4 to change matching categories. The VP system plays question 1.
7. The box owner enters the new value for question 1 in the Listing box. The box owner can press # instead of a number to signify that the answer a caller provides to this question in the Gateway box is always considered a match to question1 in this box, no matter what value the caller enters.
8. The VP system plays questions 2 through 4, each time allowing the box owner to enter the value to be used in the Listing box for that question.
9. The VP system confirms that the categories have been changed.

28.5 Generating Talking Classifieds Reports

In addition to the regular call-logging feature in the VP system, the Talking Classifieds feature allows you to generate a separate report. This report lists each call that accessed any Gateway box, and lists the Listing boxes that were accessed by the caller.

There are two general steps required to generate the Talking Classifieds report:

- Prepare the report
- Print the report

28.5.1 PREPARING THE TALKING CLASSIFIEDS REPORT

If you are using the TCNAME parameter in the VM.CFG configuration file (see section 27.2), the VP system records the name of each caller who accesses any of the Talking Classifieds gateways. To convert the recorded name to text that can be printed on a report, you use the CALL HISTORY screen.

To access the Call History screen through the DOS-based VP system screen interface:

1. From the LINE STATUS screen, press <F10>. The Main menu displays and you are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Customer level passwords on the GENERAL INFORMATION screen.
3. From the Main menu, select SYSTEM INFORMATION. The System Information menu displays.
4. Select the OPTIONAL FEATURES option. Then, from the menu that displays, select CLASSIFIEDS. The VP system displays the Talking Classifieds menu.
5. Select PREPARE REPORT. The VP system displays the CALL HISTORY screen. When you have made necessary modifications to the screen, press <F10> to save the changes. You return to the System Information menu.

To access the Call History screen through the Windows-based VP system screen interface:

1. From the Windows desktop, double-click the DATABASE ADMINISTRATOR icon. You are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Administrator level passwords on the GENERAL INFORMATION screen.
3. Access the System pull-down menu.
4. Select the OPTIONAL FEATURES option. From the menu that displays, select TALKING CLASSIFIEDS and then CALL HISTORY REPORT.
5. If there are no call records, a message box will indicate that there are no call records before the user is returned to the main Database Administrator screen. If there *are* call records, the CALL HISTORY REPORT screen displays.

28.5.2 COMPLETING THE CALL HISTORY SCREEN (DOS-BASED SYSTEMS)

Using the CALL HISTORY screen on DOS-based systems, you can scroll through all the calls in the call-history file (all the calls that accessed the Talking Classifieds Gateway boxes).

Use the menu available on the screen to play the caller's name, and then type the name (and telephone number if recorded) into the appropriate fields. The VP system uses these fields when printing the Talking Classifieds report.

Note the box information in the lower portion of the screen. This shows all the Listing Boxes accessed by the caller. An asterisk (*) beside a Listing box means that the caller chose option 4 (more information) after listening to that listing. These boxes and the asterisks are listed in the Talking Classifieds report.

The call-history file stores up to 500 calls. You should delete the call records regularly after generating a report. (Use the <F3> or <F8> keys on the CALL HISTORY Screen).

28.5.3 COMPLETING THE CALL HISTORY REPORT SCREEN (WINDOWS-BASED SYSTEMS)

As with DOS-based systems, using the CALL HISTORY screen on Windows-based systems, you can scroll through all the calls in the call-history file (all the calls that accessed the Talking Classifieds Gateway boxes).

Use the menu available on the screen to play the caller's name, and then type the name (and telephone number if recorded) into the appropriate fields. The VP system uses these fields when printing the Talking Classifieds report. The data for Call Reference Number, Date, Time, and Listing Boxes visited is loaded from the call history file and is not modifiable.

The box information in the lower portion of the screen displays up to 20 Listing Boxes accessed by the caller. An asterisk (*) beside a Listing box means that the caller chose option 4 (more information) after listening to that listing. These boxes and the asterisks are listed in the Talking Classifieds report.

The call-history file stores up to 500 calls. You should delete the call records regularly after generating a report.

28.5.4 PRINTING THE TALKING CLASSIFIEDS REPORT

To print the Talking Classifieds report through the DOS-based VP system screen interface:

1. From the LINE STATUS screen, press <F10>. The Main menu displays and you are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Customer level passwords on the GENERAL INFORMATION screen.
3. From the Main menu, select SYSTEM INFORMATION. The System Information menu displays.
4. Select the OPTIONAL FEATURES option. Then, from the menu that displays, select CLASSIFIEDS. The VP system displays the Talking Classifieds menu.
5. Select PRINT REPORT. The VP system sends the report to the printer.

To print the Talking Classifieds report though the Windows-based VP system screen interface:

1. From the Windows desktop, double-click the DATABASE ADMINISTRATOR icon. You are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Administrator level passwords on the GENERAL INFORMATION screen.
3. Access the System pull-down menu.
4. Select the OPTIONAL FEATURES option, then from the menu that displays, TALKING CLASSIFIEDS.
5. From the menu that displays, select CALL HISTORY REPORT. On the screen that displays, press the Print Report button.

Note:	Since no Print Manager box displays, unless the user's system is set up to receive notification when printing is complete, there will be no indication that it has occurred.

28.6 Automatically Allocating Mailboxes

You can set up a Talking Classifieds application to allow callers to create a Listing box, define its criteria and record its message, then add it to the other Listing boxes available on the system—all without the intervention of the system administrator. To allow a caller to add a Listing box, you set up the VP system to first automatically allocate a mailbox to the caller. The mailbox "owns" a Listing box that is also automatically generated with it. The caller sets up this Listing box by calling into the system as a mailbox owner, and following system prompts to modify his/her mailbox's associated Listing box.

Note that mailboxes that are automatically allocated to callers are restricted in functionality, so they can only communicate with the Listing box they own. This prohibits the owners of automatically allocated mailboxes from interacting through voice mail with other employees who have mailboxes on the VP system. Automatically allocated mailboxes can also be programmed to be de-allocated after a preset number of days. When the box is de-allocated, so is its associated Listing box.

Before anyone can use the automatic allocation feature, you must enter system information on the AUTO ALLOCATION screen.

28.6.1 ACCESSING THE AUTO ALLOCATION SCREEN

Note:	Refer to section 29 for graphical illustrations of all VP system screens.

To access the Auto Allocation screen through the DOS-based VP system screen interface:

1. From the LINE STATUS screen, press <F10>. The Main menu displays and you are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Customer level passwords on the GENERAL INFORMATION screen.
3. From the Main menu, select SYSTEM INFORMATION. The System Information menu displays.
4. Select the OPTIONAL FEATURES option. Then, from the menu that displays, select CLASSIFIEDS. The VP system displays the Talking Classifieds menu.
5. Select AUTOMATIC ALLOCATION. When you have made necessary modifications to the screen, press <F10> to save the changes. You return to the System Information menu.

To access the Auto Allocation screen through the Windows-based VP system screen interface:

1. From the Windows desktop, double-click the DATABASE ADMINISTRATOR icon. You are prompted to enter a password.
2. Type **1234** then press <Enter> to log on using the default Technician level password. You can change both the Technician and Administrator level passwords on the GENERAL INFORMATION screen.
3. Access the System pull-down menu.
4. Select the OPTIONAL FEATURES option. Then, from the menu that displays, select TALKING CLASSIFIEDS.

5. From the menu that displays, select AUTOMATIC ALLOCATION. When you have made any necessary modifications to the screen, click on the Save icon on the screen. You return to the main screen.

Note:	Field names and screen descriptions for both DOS-based and Windows-based VP systems screens are presented in this section. Each field description identifies the field name used in both types of products. Be advised that due to differences in the screen design between DOS-based and Windows-based VP systems, the placement of fields on several screens vary slightly. All fields on all screens *are* discussed in this section.
Note:	**To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.**

28.6.2 AUTOMATIC ALLOCATION SCREEN FIELD DESCRIPTIONS

Be advised that due to differences in the screen design between DOS-based and Windows-based VP systems, the placement of fields on several system screens vary slightly. To locate the information on a particular field most easily, consult the Index to find the page number of this document that contains the field description.

Fields used in DOS-based VP systems are prefaced below with **DOSVP**, and fields used in Windows-based VP systems are prefaced with **WINVP.** If the WINVP field resides on a certain tab on the screen or if the DOSVP field resides on a certain screen page, the tab or page is identified next to the field name.

Several field descriptions discuss setting fields to YES or NO settings. In Windows-based VP systems, this equates to checking or un-checking the field's checkbox, which you do by clicking on it.

DOSVP:Allow Callers to Allocate Mailboxes Automatically
WINVP:Allow Callers to Allocate Mailboxes Automatically

This field turns the automatic allocation feature ON or OFF.

DOSVP:Digits to Use to Automatically Allocate a Mailbox
WINVP:Digit to Use to Automatically Allocate a Mailbox

DOSVP:General "Help" Information Recorded
WINVP:Record Help buttonThis field assigns the digit to be dialed within the voice mail gateway box (9992) to begin the allocation process. The default digit is *.

This field indicates whether Help information has been recorded. On Windows-based VP systems, an existing recording is signified by a red light displaying on the button.

Use this field to record application-specific Help information. A caller who has just allocated him/herself a new mailbox can reach this Help by pressing 2 from the menu that is played immediately after being given the new password.

Record help using the same techniques you use to record Gateway box questions and Listing box descriptions.

DOSVP:Automatically De-Allocate Mailbox After X Days
WINVP:Automatically De-Allocate Mailbox After X Days

You can set up the system to automatically de-allocate mailboxes after a pre-defined number of days. When a mailbox is de-allocated, it is once again available for assignment to a new owner. Entering **0** (zero, the default) in this field disables this feature (mailboxes remain on the system unless manually deleted.)

DOSVP:Re- Start Counter Each Time Mailbox is Opened
WINVP:Restart Timer Each Time Mailbox is Opened

You can use this field to modify how the previous field functions. If you enter YES in this field, mailboxes are only automatically de-allocated after the assigned number of days if they are unused for that time period (the mailbox owner has not logged into his/her mailbox).

For example, if you enter 5 days in the previous field and if the owner does not log in to his/her mailbox within 5 days after the original allocation, the mailbox is de-allocated. However, each time the owner *does* log into the mailbox, the counter re-sets and he/she has an additional 5 days before the box is de-allocated due to inactivity.

If 0 is entered in the previous field, this field is inactive.

DOSVP:Delete Any Existing Messages When Allocating Box
WINVP:Delete Existing Messages When Allocating Mailbox

If you are using the automatic de-allocation feature, a mailbox that is automatically de-allocated may have messages that the previous owner has not deleted. When the mailbox is returned to the pool of allocable boxes, this field allows you to specify whether any messages in the box are deleted before the box is re-allocated.

DOSVP:If Unable to Allocate a Mailbox, Go to Box
WINVP:If Unable to Allocate a Mailbox, Go to Box

If the VP system is unable to allocate a new mailbox to a caller (for example, if there are no more boxes available), a system prompt plays, *"I'm sorry, there are no free mailboxes right now. Please try again later."* The call is routed to the box specified in this field.

28.6.3 SETTING UP ALLOCABLE MAILBOXES

After setting up the AUTOMATIC ALLOCATION screen, you need to identify the mailboxes that can be allocated.

To define allocable mailboxes:

Create a range of mailboxes to be available for automatic allocation. In the RESTRICTED access field of each mailbox, enter **9988**. This code restricts the mailbox so it can communicate only with its associated Listing box.

When an incoming call is received, and the caller wants to allocate him/herself a mailbox, you must set up a method to route this caller to the voice mail Gateway box (9992). For example, you could have a Routing box greeting such as:

"Thank you for calling the XYZ Hotline.
To hear listings, press 1.
To record your own listing, press pound."

Once the caller routes to the Gateway box, he/she hears the prompt:

"Please enter your mailbox number. If you do not have a mailbox and would like to be assigned one, press star."

If the caller presses *, the VP system locates an available mailbox previously set up for allocation. It then generates a random 4-digit password and plays the password to the new box owner. The owner then has the opportunity hear the password again, hear more information (recorded as the help information on the AUTOMATIC ALLOCATION screen), or open his/her mailbox:

"To repeat this information, press 1.
For more information, press 2.
Or, to continue, press 3."

If the caller presses 3, he/she hears the tutorial for first-time mailbox users (if this feature is in effect on the system (see section 6).

28.6.4 SETTING UP COMPANION LISTING BOXES FOR AUTOMATIC ALLOCATION MAILBOXES

For each mailbox created for the Automatic Allocation feature, you should create a companion Listing box. The box numbers of the Listing boxes should be easily associated with the companion mailbox. For example, if you create a range of allocable mailboxes with box numbers 400 to 499, then the companion Listing boxes could be 1400 to 1499.

By closely associating companion Listing box numbers with their automatic allocation mailboxes, you can inform new mailbox owners how to determine their Listing box number when they are automatically assigned a mailbox.

Enter the associated mailbox number in the LISTING AGENT field of each companion mailbox. This makes the mailbox the "owner" of the Listing box, and the mailbox owner can access the Listing box to record the greeting and/or change the Listing box categories. Also, when other callers listen to this Listing box and press 3 to transfer to the listing party, their call is transferred to the companion mailbox, where the caller can leave a message.

See Section 27.4 for detailed instructions on how mailbox owners can access and modify a Listing box.

28.7 Using Talking Classified Module Prompts

28.7.1 USING NEW PROMPTS

The following prompts are used by the Talking Classifieds module:

Prompt	Filename	Contents of Phrase
1000	NOMORLST.VOI	"I'm sorry, there are no more listings in that category."
1001	RLTNOLST.VOI	"I'm sorry, there are no listings in that category."
1002	ONEFRMOR.VOI	"To hear the next listing, press 1. To choose a new price-range, area, size or other option, press 2. To speak to the agent, press 3. If you would like us to send you more information, press 4. To re-play this listing, press 5. You may exit at any time by pressing the * key." If you offer option 4, make sure that you set the system up to ask for the caller's name and telephone number.
1003	RMAINMNU.VOI	"To hear a selection of our listings, press 1. If you would like to select a particular price-range, area, size or other option, press 2."
1004	RSUBSMNU.VOI	"To hear listings which match your selections, press 1. If you would like to select a new price-range, area, size or other option, press 2."
1005	RGETNAME.VOI	"In order for us to serve you better, you may - if you wish - leave us your name and telephone number after the tone."
1006	INFOTOGO.VOI	"Thank you. We will be in contact with you as soon as possible." This prompt is played when a caller chooses option 4 in response to prompt number 1002 above.
1007	RLTCHGOK.VOI	"Thank you. Those details have now been changed as requested."
1008	THEREIS.VOI	"There is"
1009	THEREARE.VOI	"There are"
1010	LS1MATCH.VOI	"listing that matches your current choices"
1011	LS2MATCH.VOI	"listings that match your current choices"
1012	ALOCNOMO.VOI	"I'm sorry, there are no free mailboxes right now. Please try again later."
1013	ALOCCANT.VOI	"I'm sorry, we cannot allocate a new mailbox right now. Please try again later."
1014	ALOCMENU.VOI	"To repeat this information, press 1. For more information, press 2. Or to continue, press 3."
1015	ALOCNMBR.VOI	"Your new mailbox number is"
1016	ALOCPASW.VOI	"and the password is"

28.7.2 MODIFYING EXISTING PROMPTS

The following prompts, which are part of the standard VP system package, must be modified to include the options for the Talking Classifieds module. The phrase that needs to be added is shown below. A few of the most commonly used versions of these prompts have been pre-recorded and are described below. You can use these pre-recorded modified prompts by copying them onto the system, or you can re-record the prompts that must be modified using procedures detailed in section 15.

Prompt	Filename	Modification Required
59	WHICHBOX.VOI	*Add option for Automatic allocation of mailboxes:* " If you do not have a Mailbox and would like for me to create one for you, press star."
93	GRTOPT.VOI	*Add the listing box option (number 4):* "...to change the categories of a Listing box, press 4..."

28.7.3 COPYING PRE-RECORDED MODIFIED PROMPTS

The following prompts were pre-recorded and can be used to replace the existing prompts supplied with the standard VP system software package. These prompts were copied to the to \VM\P directory when the Talking Classifieds module was installed. Pre-recorded modified prompts have the same filenames as their corresponding standard prompts, but they use a different file extension.

To copy a modified prompt to the active system, follow these steps:

1. If the system is a DOS-based VP system, shut it down if it is currently running. For procedures, see section 2.5.
2. Locate the text you want to use in the following table and make a note of the filename.
3. Copy the file over the prompt with the .VOI file extension. (You may want to first rename the .VOI prompt an extension .OLD, so if you ever want to revert back to it, the prompt is still available.) For example, to replace the existing prompt 59 with WHICHBOX.OP1, access a command prompt and type the following command:

   `COPY \VM\P\WHICHBOX.OP1 \VM\P\WHICHBOX.VOI` then press <Enter>
4. When you finish modifying prompts, re-start the VP system.

Prompt	Filename	Contents of Phrase
59	WHICHBOX.OP1	*"Please enter your mailbox number. If you do not have a Mailbox and would like for me to create one for you, press *."*

93	GRTOPT.OP1	*"To replay the greeting, press 1.* *To re-record the greeting, press 2.* *To delete the greeting, press 3.* *To change the categories of a Listing box, press 4.* *To choose a new greeting, press 5.* *Or, to return to the Options menu, press #."*

29. PROGRAM SCREENS

This section provides illustrations of VP system screens. For information on accessing screens, refer to procedures provided in sections 4 and 5. Note that not all screens may be accessible on all VP system systems.

29.1 DOS-based VP system—System Information Screens

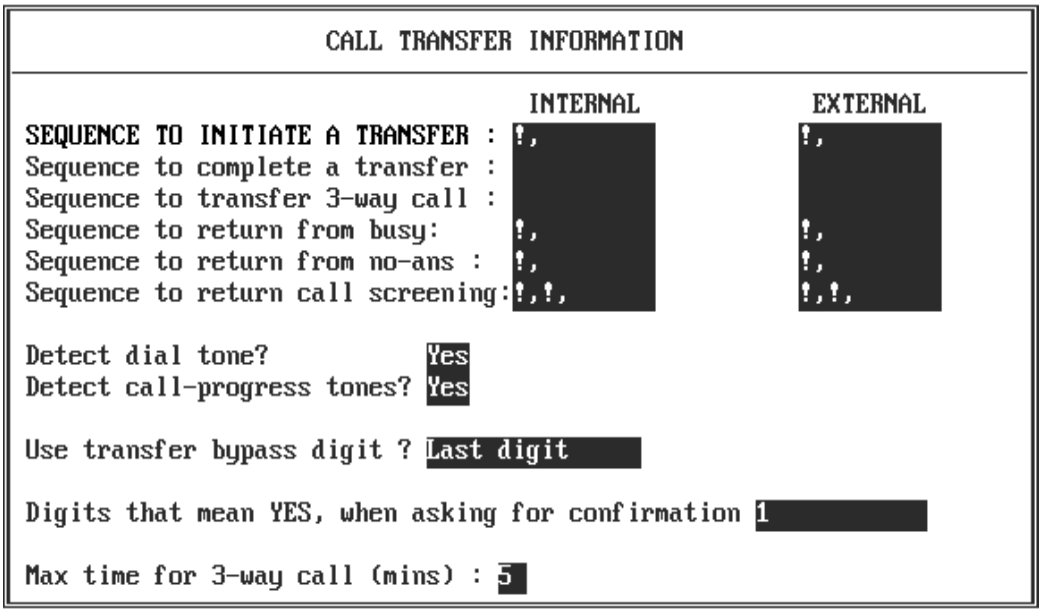
29.1.1 AUTOMATIC MAILBOX ALLOCATION SCREEN

```
                    A U T O   A L L O C A T I O N

Allow callers to allocate Mail-boxes automatically? Yes

DIGIT TO USE TO AUTOMATICALLY ALLOCATE A MAIL-BOX:  *

General "Help" information recorded:                No

Automatically deallocate Mail-box after  0  days

Re-start counter each time Mail-box is opened?      No

Delete any existing messages when allocating box?   Yes

If unable to allocate a Mail-box, go to box:        821
```

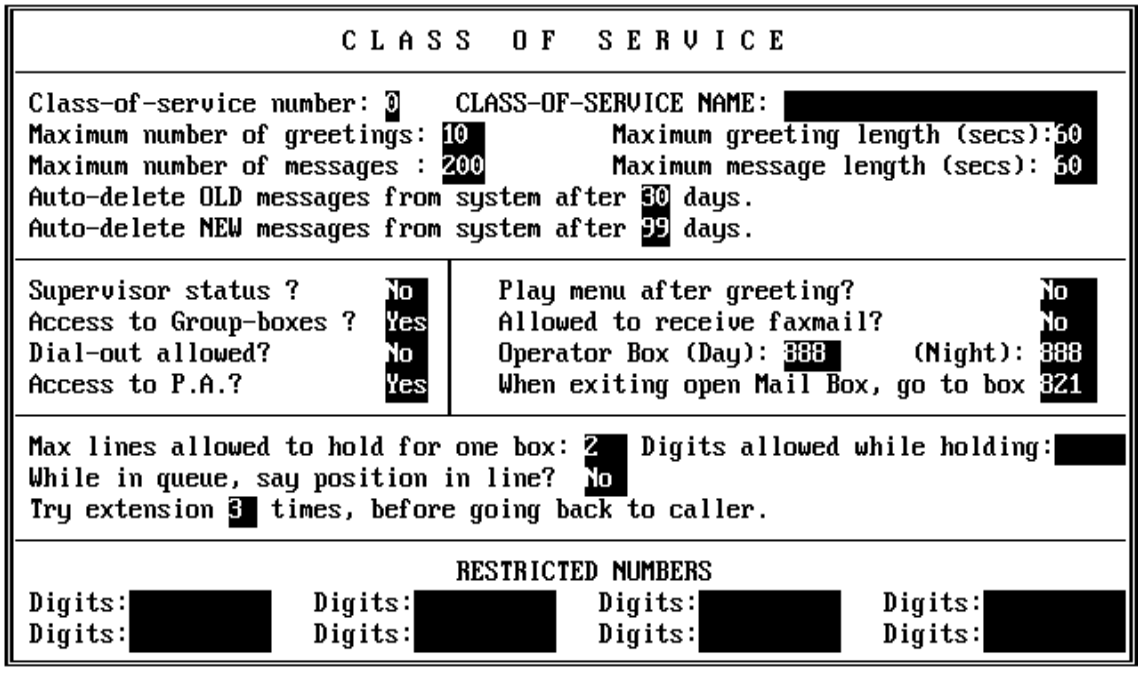
29.1.2 BUSINESS HOURS SCREEN

```
                    B U S I N E S S   H O U R S

          Day        Day          Lunch        Lunch
        service    service      service      service
         begins     ends         begins       ends
SUN:    _____      _____        _____        _____
Mon:    _____      _____        _____        _____
Tue:    _____      _____        _____        _____
Wed:    _____      _____        _____        _____
Thu:    _____      _____        _____        _____
Fri:    _____      _____        _____        _____
Sat:    _____      _____        _____        _____

Change "Good afternoon" to "Good evening" at: _____
```

29.1.3 CALL TRANSFER SCREEN


CALL TRANSFER INFORMATION
INTERNAL
EXTERNAL
SEQUENCE TO INITIATE A TRANSFER : !,
Sequence to complete a transfer :
Sequence to transfer 3-way call :
Sequence to return from busy: !,
Sequence to return from no-ans : !,
Sequence to return call screening: !,!,
!,
!,
!,
!,!,
Detect dial tone? Yes
Detect call-progress tones? Yes
Use transfer bypass digit ? Last digit
Digits that mean YES, when asking for confirmation 1
Max time for 3-way call (mins) : 5

29.1.4 CLASS OF SERVICE SCREEN


C L A S S O F S E R V I C E
Class-of-service number: 0 CLASS-OF-SERVICE NAME:
Maximum number of greetings: 10 Maximum greeting length (secs): 60
Maximum number of messages : 200 Maximum message length (secs): 60
Auto-delete OLD messages from system after 30 days.
Auto-delete NEW messages from system after 99 days.
Supervisor status ? No
Access to Group-boxes ? Yes
Dial-out allowed? No
Access to P.A.? Yes
Play menu after greeting? No
Allowed to receive faxmail? No
Operator Box (Day): 888 (Night): 888
When exiting open Mail Box, go to box 821
Max lines allowed to hold for one box: 2 Digits allowed while holding:
While in queue, say position in line? No
Try extension 3 times, before going back to caller.
RESTRICTED NUMBERS
Digits:
Digits:
Digits:
Digits:
Digits:
Digits:
Digits:
Digits:

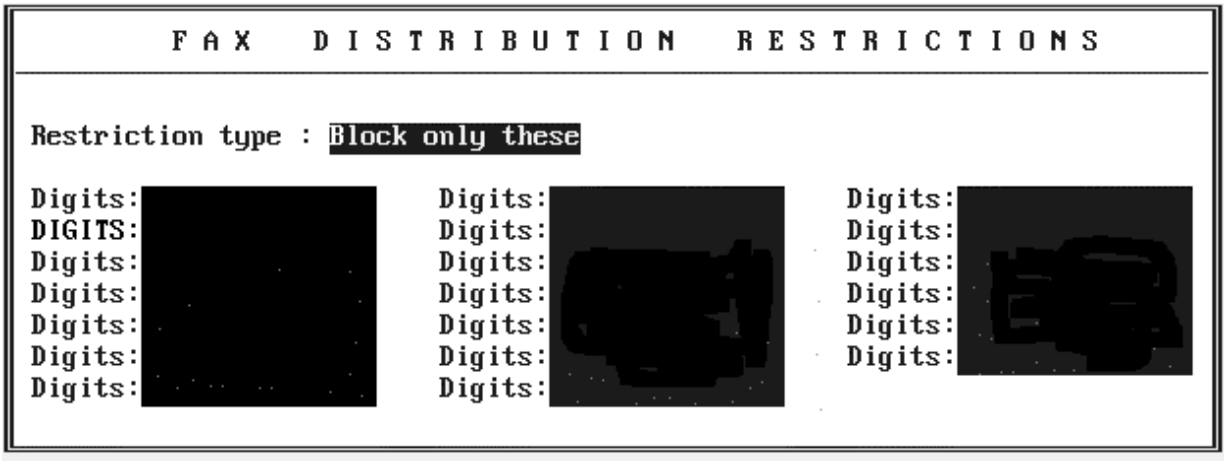
29.1.5 29.1.5 CLASSIFIEDS GATEWAY SCREEN

```
                    C L A S S I F I E D S   G A T E W A Y

  Box number :  3907

  GATEWAY NAME: Real Estate

  Greeting recorded :   Yes

  Question 1 recorded : Yes            Question 2 recorded : Yes

  Question 3 recorded : Yes            Question 4 recorded : Yes

  On exit from Talking Classifieds area, Go to box ...  - box 300
```

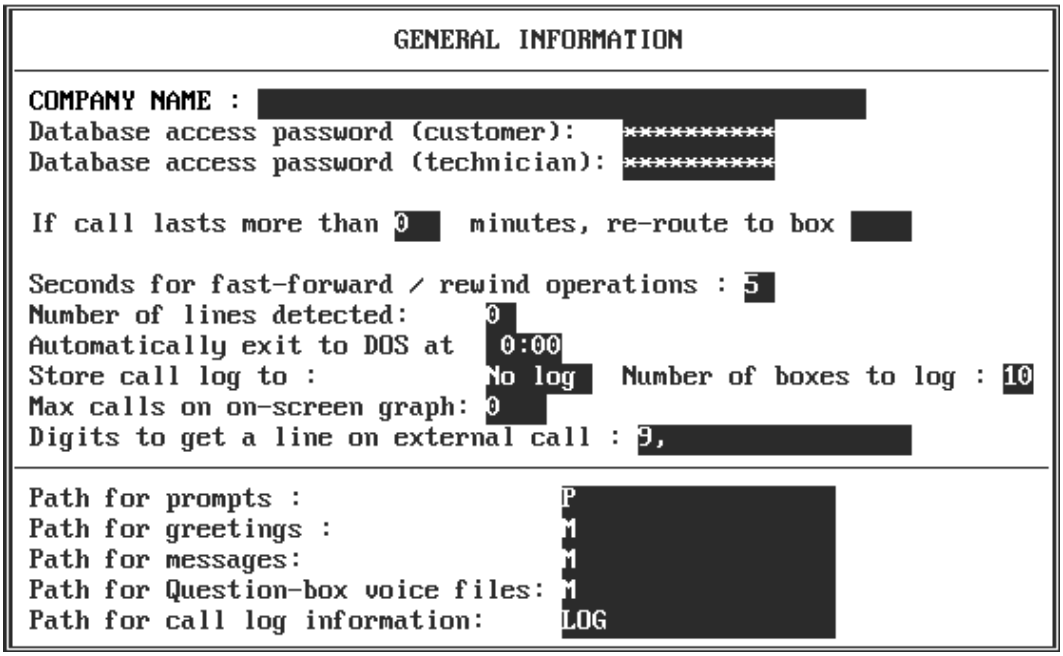
29.1.6 FAX SETUP SCREEN

```
                          F A X   S Y S T E M   S E T U P

Fax cover page preference:          Custom
Filename for cover-page logo:       pagetry.pcx
How to transmit faxes:              Offer option
Max faxes we will send per call :   3
Sending resolution:                 Standard

Fax 1 is on line 1   Fax 5 on line 0   Fax  9 on line 0   Fax 13 on line 0
Fax 2 is on line 2   Fax 6 on line 0   Fax 10 on line 0   Fax 14 on line 0
Fax 3 is on line 0   Fax 7 on line 0   Fax 11 on line 0   Fax 15 on line 0
Fax 4 is on line 0   Fax 8 on line 0   Fax 12 on line 0   Fax 16 on line 0

Digits to strip from callback number:EXT
Prefix a digit-1 for long-distance?  Yes
If call fails, try 2 more times, at intervals of 5 minutes.

Path for fax-distribution documents:\vm8\m
PATH FOR FAX-MAIL DOCUMENTS:        \vm8\faxmail
```

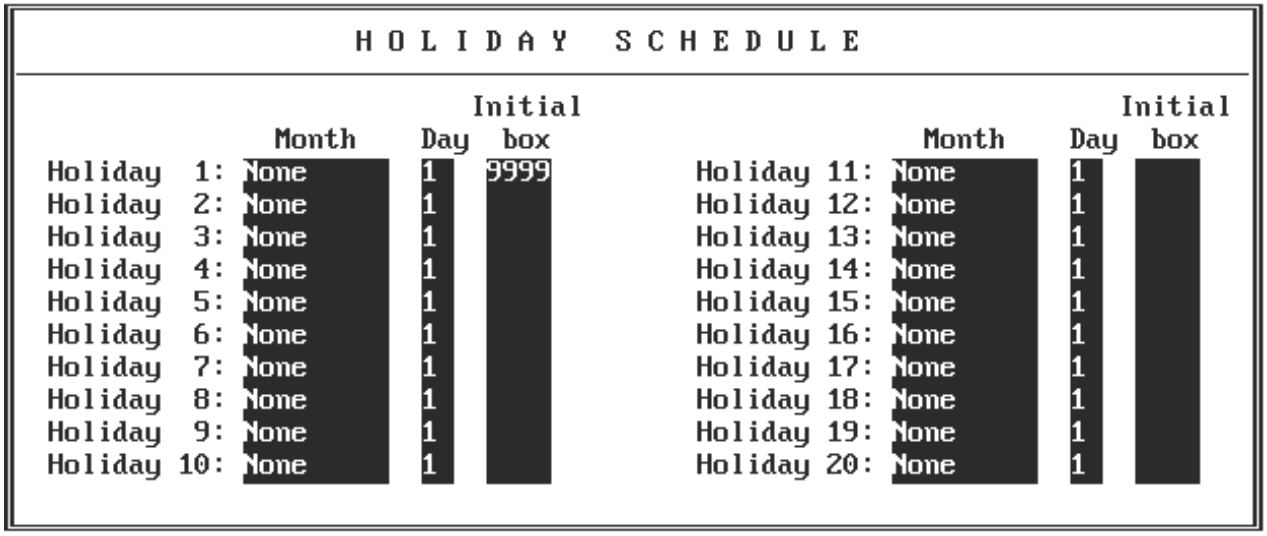
29.1.7 FAX DISTRIBUTION RESTRICTIONS SCREEN



29.1.8 GENERAL INFORMATION SCREEN


GENERAL INFORMATION
COMPANY NAME :
Database access password (customer): **********
Database access password (technician): **********
If call lasts more than 0 minutes, re-route to box
Seconds for fast-forward / rewind operations : 5
Number of lines detected: 0
Automatically exit to DOS at 0:00
Store call log to : No log Number of boxes to log : 10
Max calls on on-screen graph: 0
Digits to get a line on external call : 9,
Path for prompts : P
Path for greetings : M
Path for messages: M
Path for Question-box voice files: M
Path for call log information: LOG

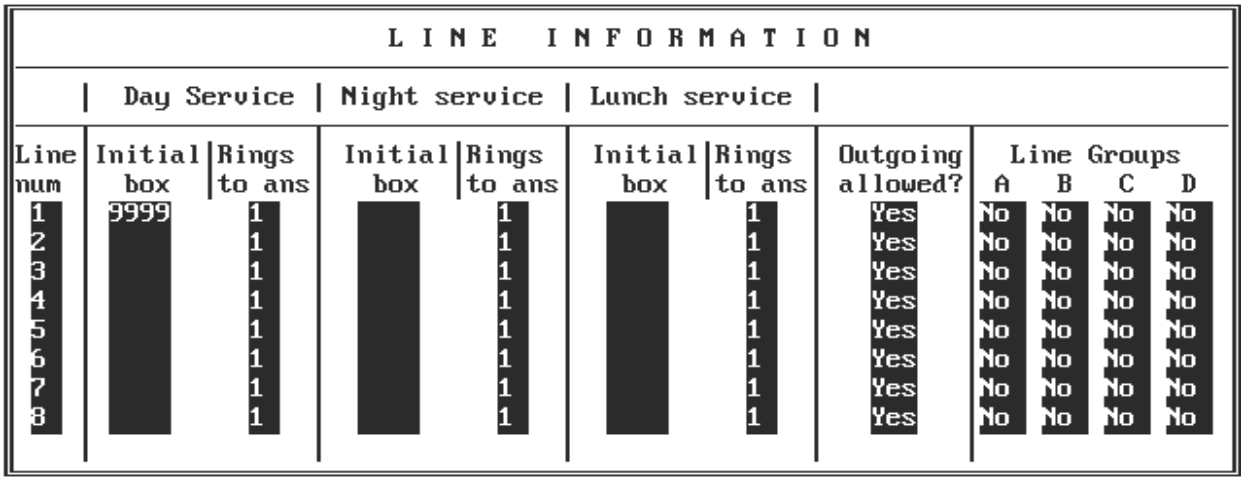
29.1.9 HOLIDAY SCHEDULE SCREEN



HOLIDAY SCHEDULE

	Month	Day	Initial box		Month	Day	Initial box
Holiday 1:	None	1	9999	Holiday 11:	None	1	
Holiday 2:	None	1		Holiday 12:	None	1	
Holiday 3:	None	1		Holiday 13:	None	1	
Holiday 4:	None	1		Holiday 14:	None	1	
Holiday 5:	None	1		Holiday 15:	None	1	
Holiday 6:	None	1		Holiday 16:	None	1	
Holiday 7:	None	1		Holiday 17:	None	1	
Holiday 8:	None	1		Holiday 18:	None	1	
Holiday 9:	None	1		Holiday 19:	None	1	
Holiday 10:	None	1		Holiday 20:	None	1	

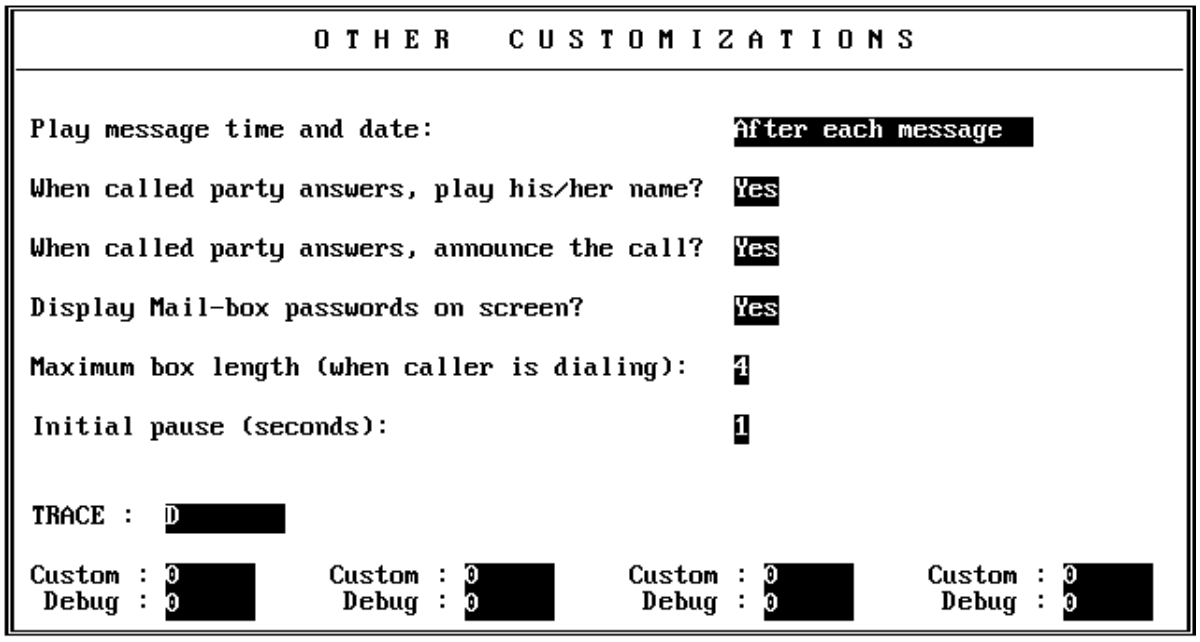
29.1.10 LINE INFORMATION SCREEN



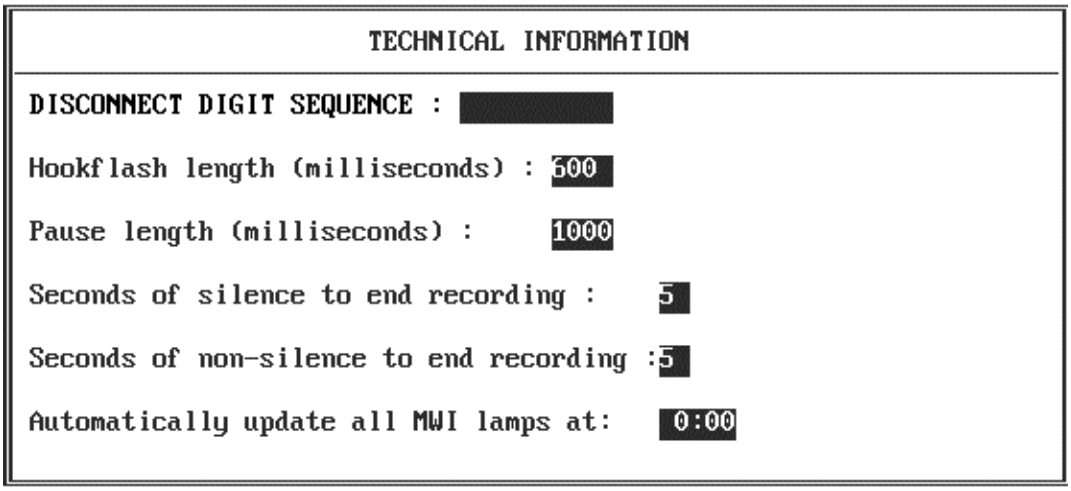
LINE INFORMATION

	Day Service		Night service		Lunch service						
Line num	Initial box	Rings to ans	Initial box	Rings to ans	Initial box	Rings to ans	Outgoing allowed?	Line Groups A	B	C	D
1	9999	1		1		1	Yes	No	No	No	No
2		1		1		1	Yes	No	No	No	No
3		1		1		1	Yes	No	No	No	No
4		1		1		1	Yes	No	No	No	No
5		1		1		1	Yes	No	No	No	No
6		1		1		1	Yes	No	No	No	No
7		1		1		1	Yes	No	No	No	No
8		1		1		1	Yes	No	No	No	No

29.1.11 OTHER CUSTOMIZATIONS SCREEN

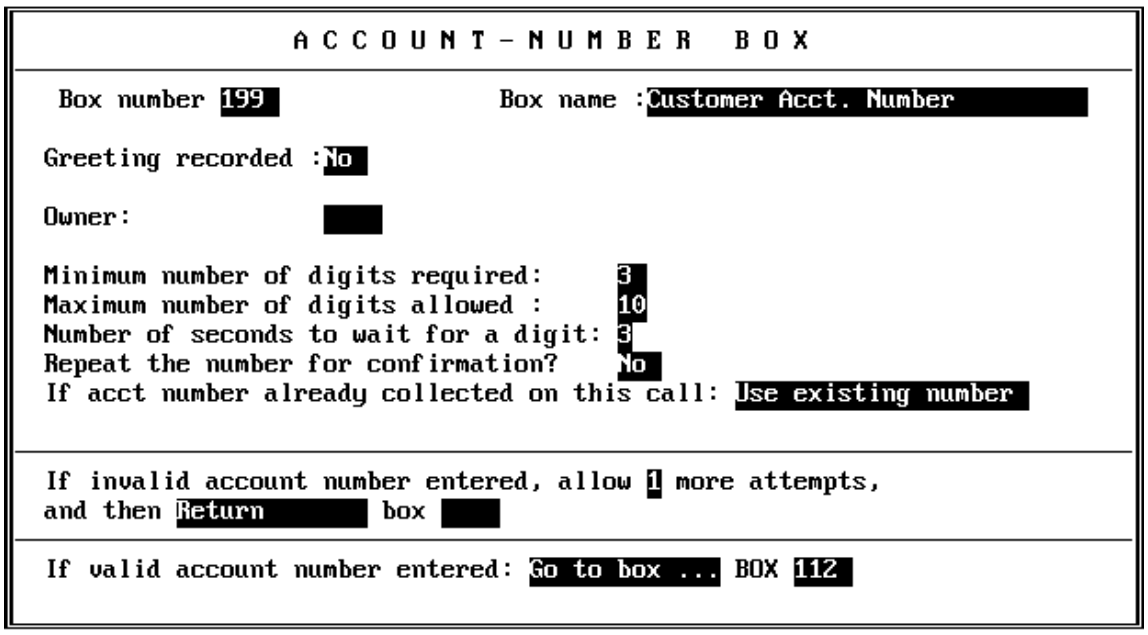

OTHER CUSTOMIZATIONS
Play message time and date: After each message
When called party answers, play his/her name? Yes
When called party answers, announce the call? Yes
Display Mail-box passwords on screen? Yes
Maximum box length (when caller is dialing): 4
Initial pause (seconds): 1
TRACE : D
Custom : 0
Debug : 0
Custom : 0
Debug : 0
Custom : 0
Debug : 0
Custom : 0
Debug : 0

29.1.12 TECHNICAL INFORMATION SCREEN

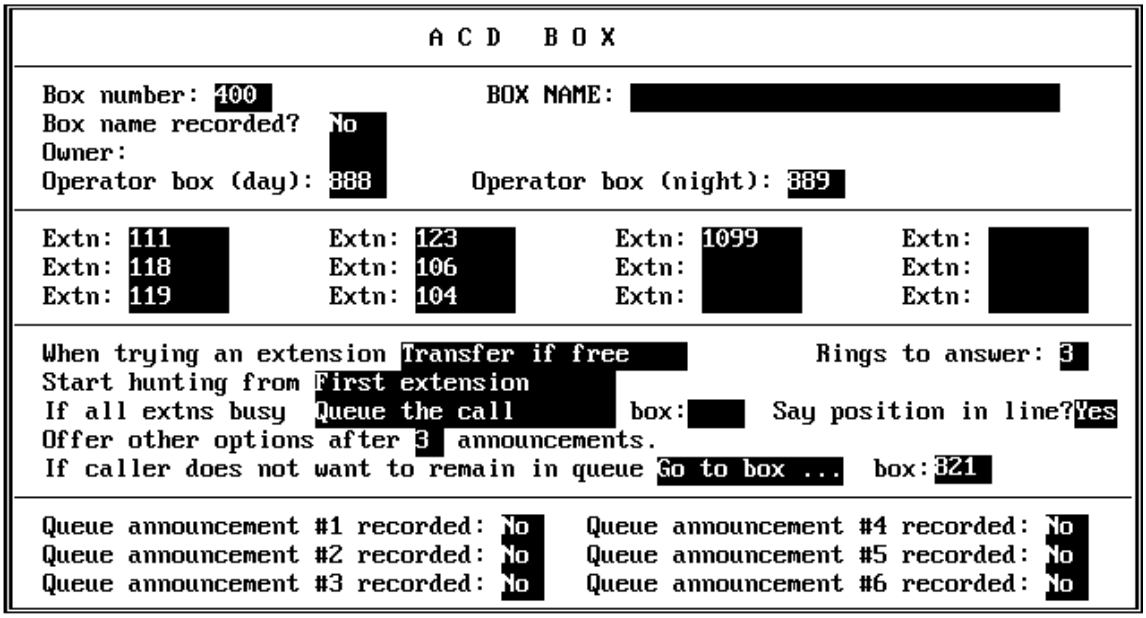

TECHNICAL INFORMATION
DISCONNECT DIGIT SEQUENCE :
Hookflash length (milliseconds) : 600
Pause length (milliseconds) : 1000
Seconds of silence to end recording : 5
Seconds of non-silence to end recording : 5
Automatically update all MWI lamps at: 0:00

29.2 DOS-based VP system—Box Setup Screens

29.2.1 ACCOUNT NUMBER BOX SCREEN


A C C O U N T - N U M B E R B O X
Box number 199
Box name :Customer Acct. Number
Greeting recorded :No
Owner:
Minimum number of digits required: 3
Maximum number of digits allowed : 10
Number of seconds to wait for a digit: 3
Repeat the number for confirmation? No
If acct number already collected on this call: Use existing number
If invalid account number entered, allow 1 more attempts,
and then Return box
If valid account number entered: Go to box ... BOX 112

29.2.2 ACD BOX SCREEN



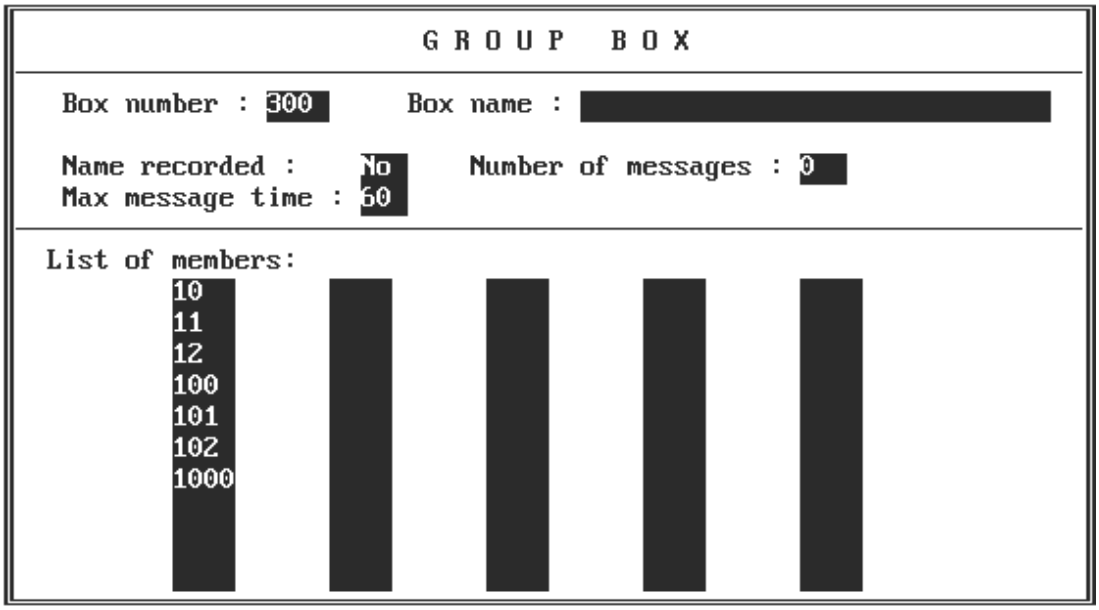
29.2.3 DIRECTORY BOX SCREEN

```
                    D I R E C T O R Y    B O X

 Box number : 9998      BOX NAME : Dial By Name Directory

 Greeting recorded : No

 Number of times to play greeting :  1

 Max number of digits to collect :   3

 If no digits dialed: Return          - box

 If name not found:   Return          - box

 Say box number before transferring? Yes

 Allow complete directory listing?   Yes
```

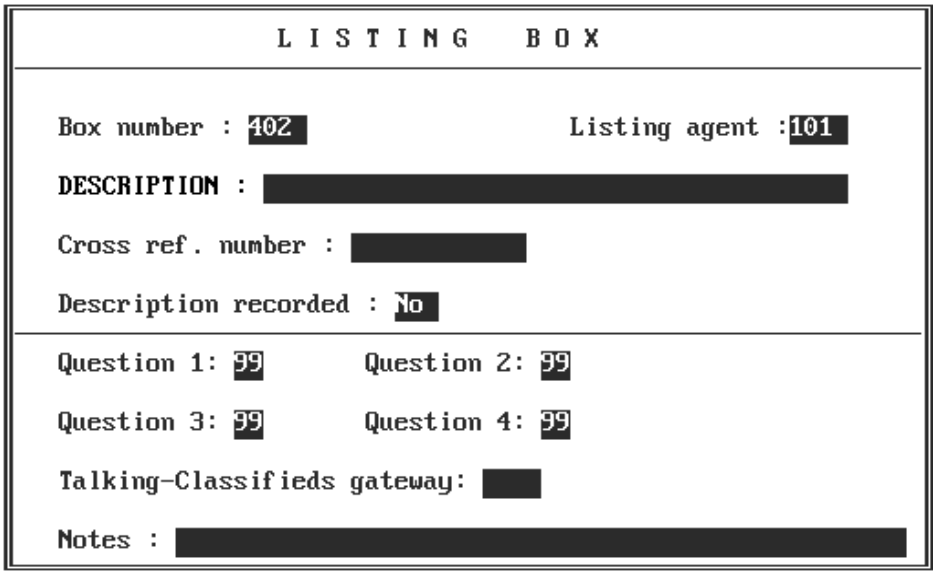
29.2.4 FAX BOX SCREEN

```
                        F A X   B O X

 Box number :              9986

 BOX NAME :                IVR auto-fax

 Document name recorded:No

 Owner box :

 Document file-name:

 Document type :           IVR response

 Document security code:

 When exiting box:
   If caller may order more documents:      Return          - box
   If caller has ordered max number of docs:Return          - box
```

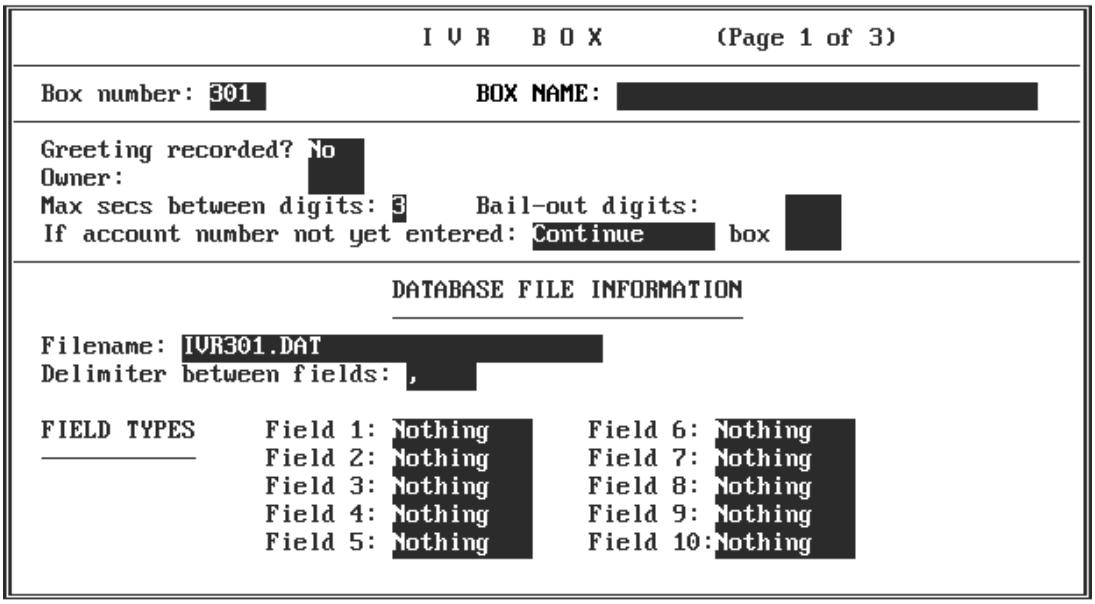
29.2.5 GROUP BOX SCREEN



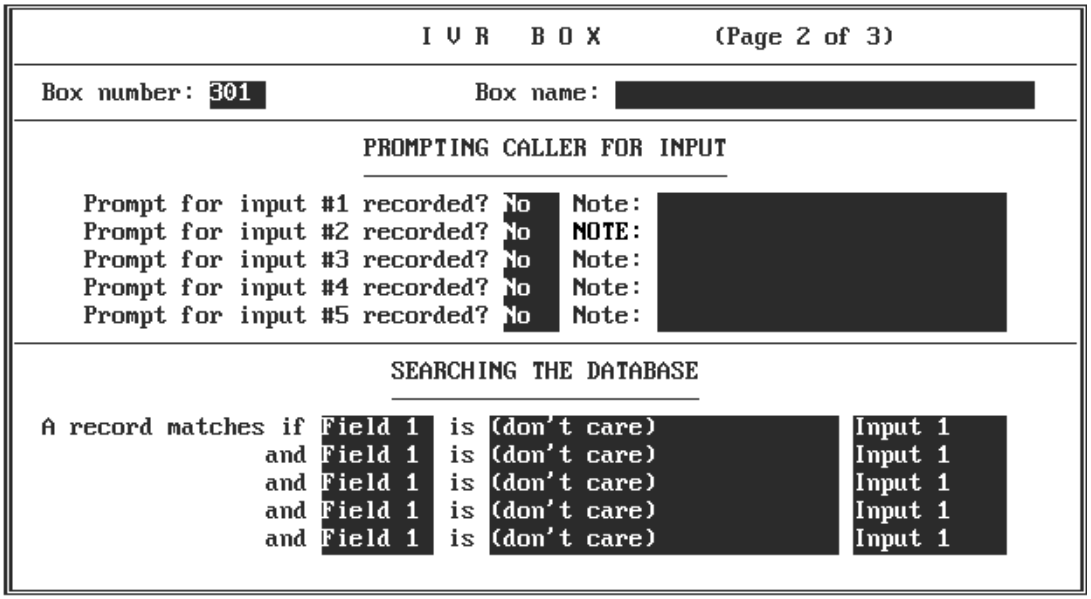
29.2.6 LISTING BOX SCREEN



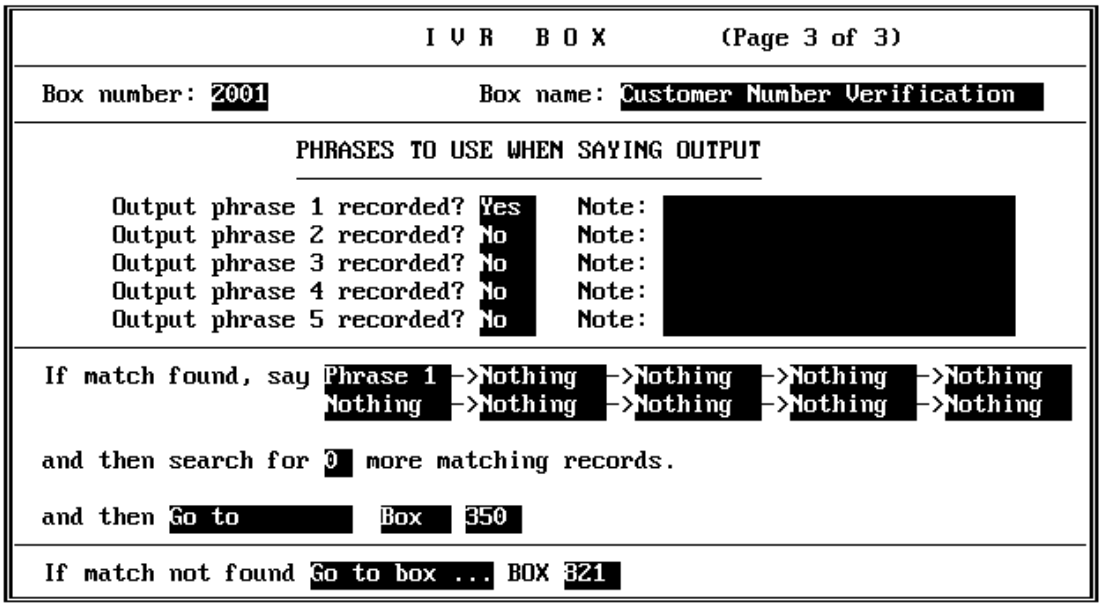
29.2.7 IVR BOX PAGE 1 SCREEN



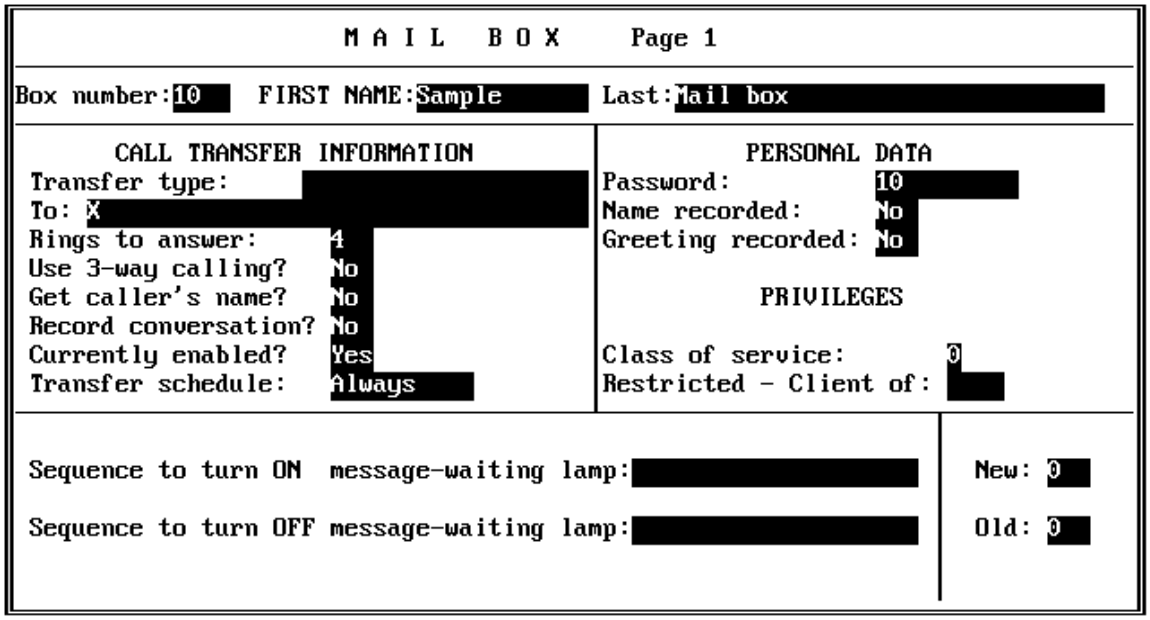
29.2.8 IVR BOX PAGE 2 SCREEN


I V R B O X (Page 2 of 3)
Box number: 301
Box name:
PROMPTING CALLER FOR INPUT
Prompt for input #1 recorded? No Note:
Prompt for input #2 recorded? No NOTE:
Prompt for input #3 recorded? No Note:
Prompt for input #4 recorded? No Note:
Prompt for input #5 recorded? No Note:
SEARCHING THE DATABASE
A record matches if Field 1 is (don't care) Input 1
and Field 1 is (don't care) Input 1
and Field 1 is (don't care) Input 1
and Field 1 is (don't care) Input 1
and Field 1 is (don't care) Input 1

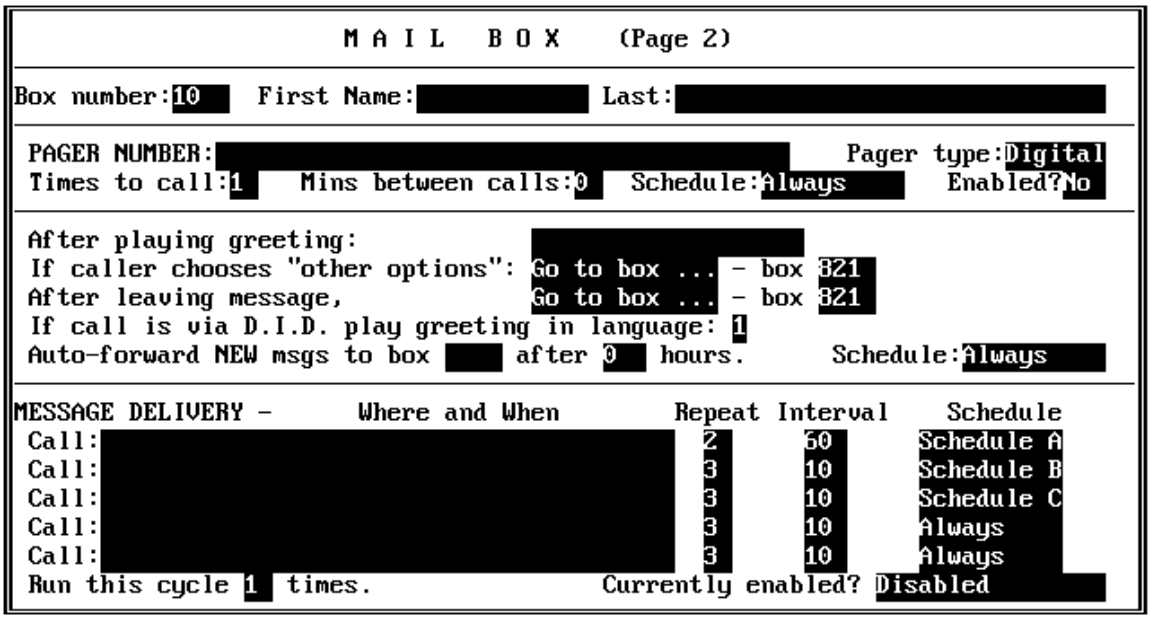
29.2.9 IVR BOX PAGE 3 SCREEN


I V R B O X (Page 3 of 3)
Box number: 2001
Box name: Customer Number Verification
PHRASES TO USE WHEN SAYING OUTPUT
Output phrase 1 recorded? Yes Note:
Output phrase 2 recorded? No Note:
Output phrase 3 recorded? No Note:
Output phrase 4 recorded? No Note:
Output phrase 5 recorded? No Note:
If match found, say Phrase 1 ->Nothing ->Nothing ->Nothing ->Nothing
Nothing ->Nothing ->Nothing ->Nothing ->Nothing
and then search for 0 more matching records.
and then Go to Box 350
If match not found Go to box ... BOX 321

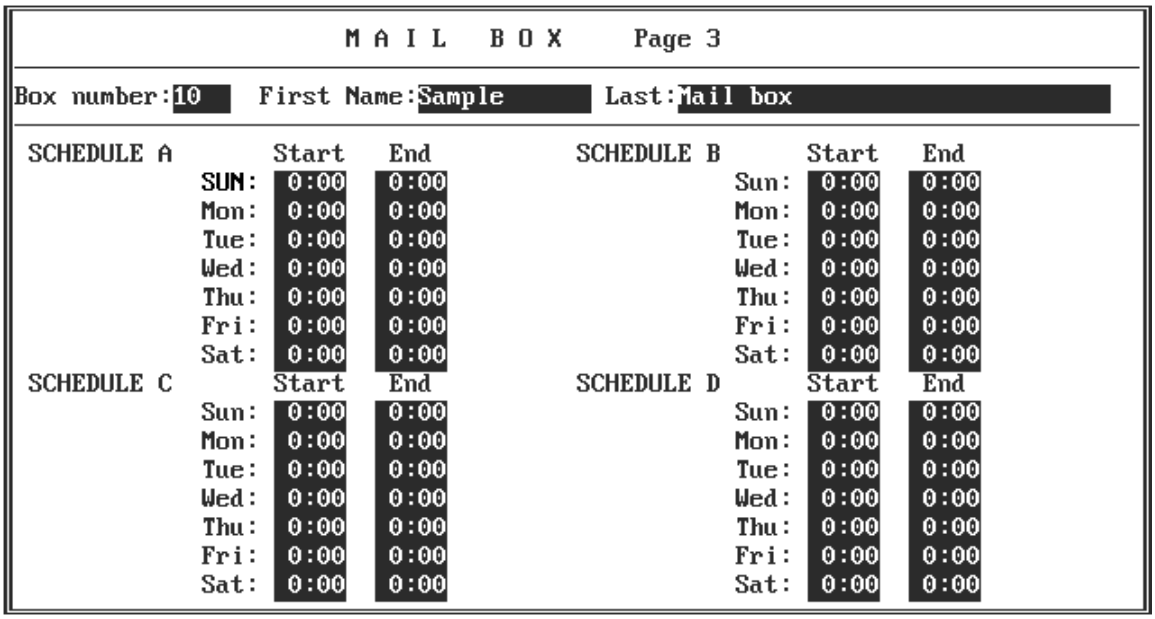
29.2.10 MAILBOX PAGE 1 SCREEN



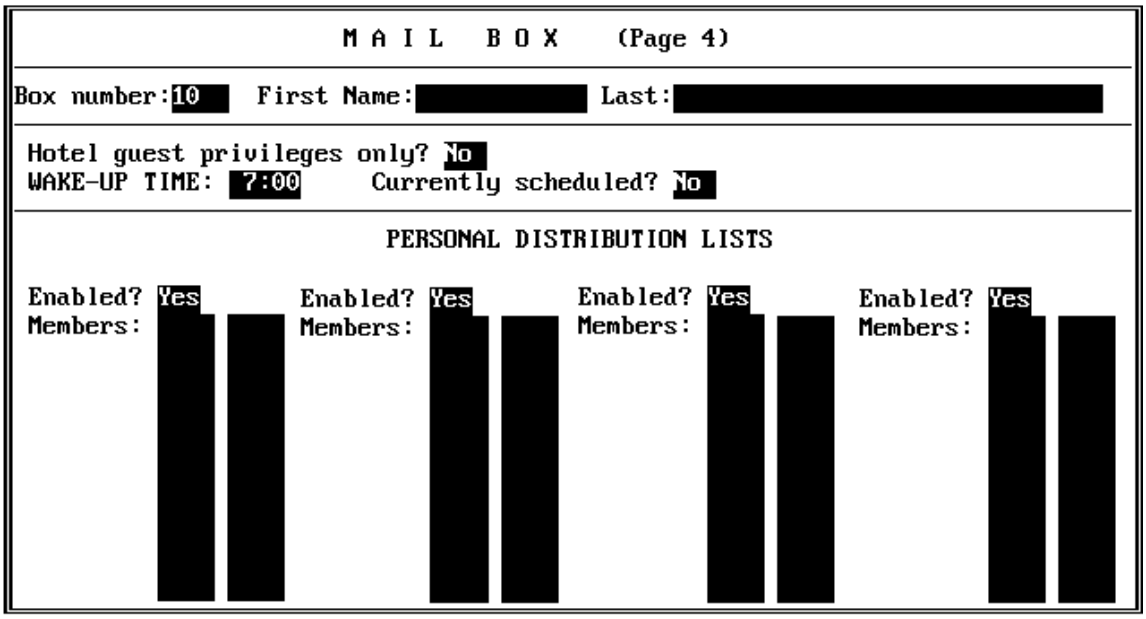
29.2.11 MAILBOX PAGE 2 SCREEN


M A I L B O X (Page 2)
Box number:10 First Name: Last:
PAGER NUMBER: Pager type:Digital
Times to call:1 Mins between calls:0 Schedule:Always Enabled?No
After playing greeting:
If caller chooses "other options": Go to box ... - box 821
After leaving message, Go to box ... - box 821
If call is via D.I.D. play greeting in language: 1
Auto-forward NEW msgs to box after 0 hours. Schedule:Always
MESSAGE DELIVERY - Where and When Repeat Interval Schedule
Call: 2 60 Schedule A
Call: 3 10 Schedule B
Call: 3 10 Schedule C
Call: 3 10 Always
Call: 3 10 Always
Run this cycle 1 times. Currently enabled? Disabled

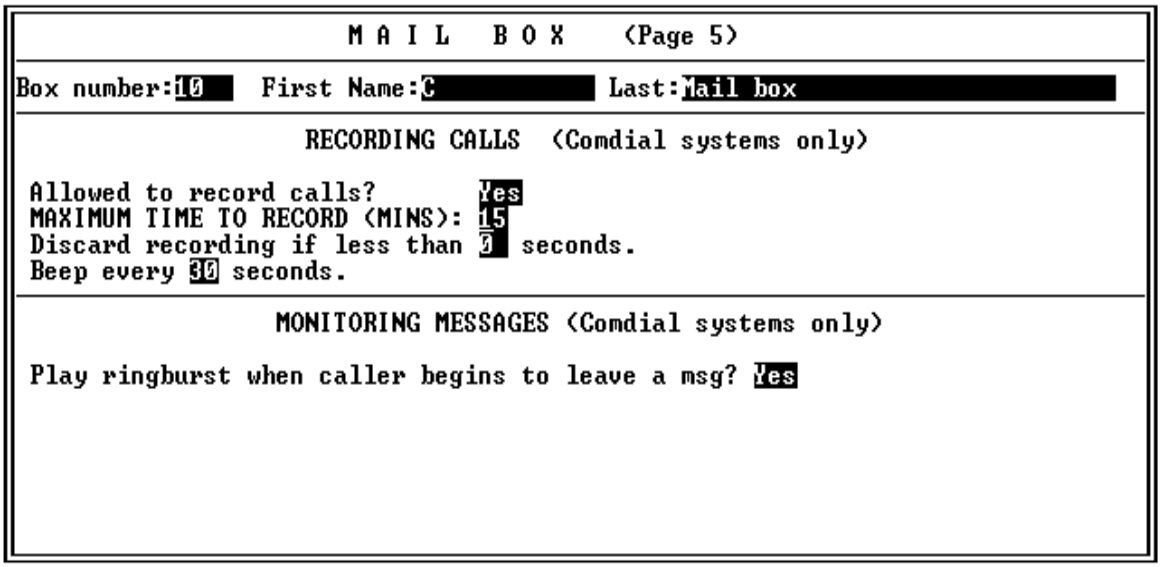
29.2.12 MAILBOX PAGE 3 SCREEN



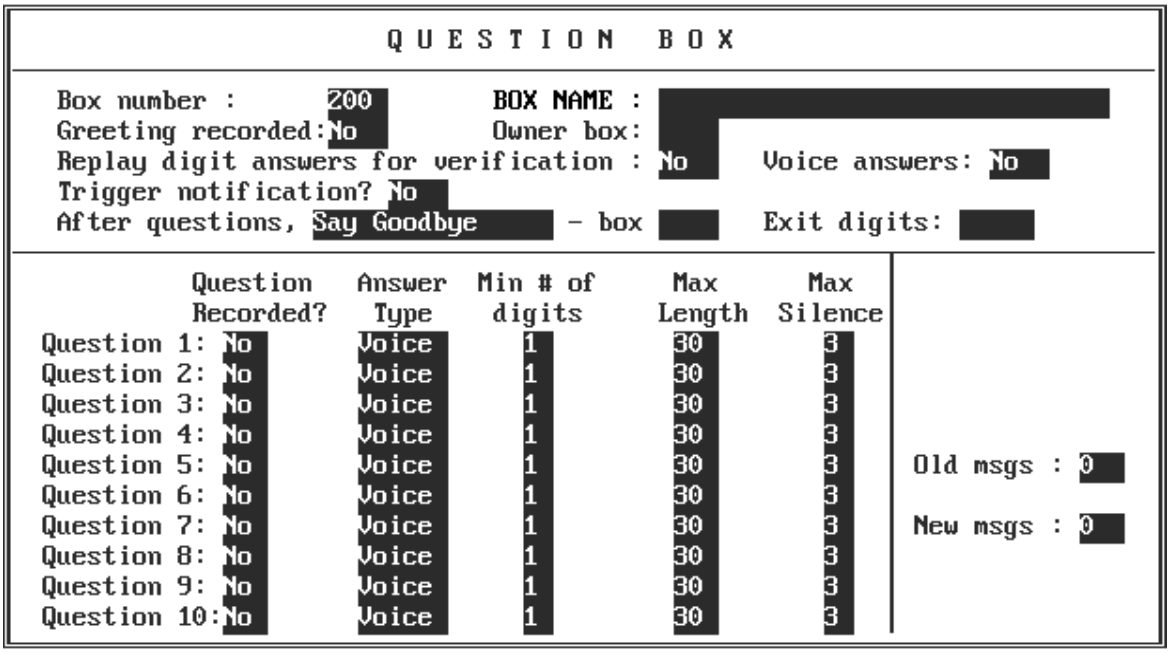
29.2.13 MAILBOX PAGE 4 SCREEN



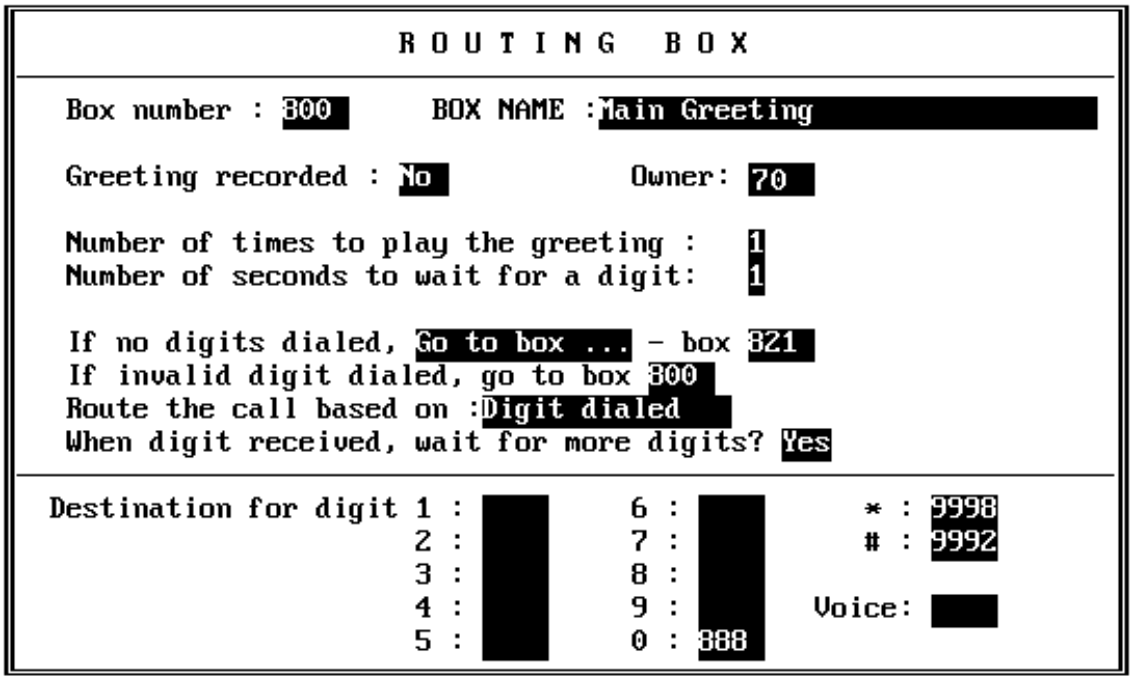
29.2.14 MAILBOX PAGE 5 SCREEN


M A I L B O X (Page 5)
Box number:10 First Name:C Last:Mail box
RECORDING CALLS (Comdial systems only)
Allowed to record calls? Yes
MAXIMUM TIME TO RECORD (MINS): 15
Discard recording if less than 3 seconds.
Beep every 30 seconds.
MONITORING MESSAGES (Comdial systems only)
Play ringburst when caller begins to leave a msg? Yes

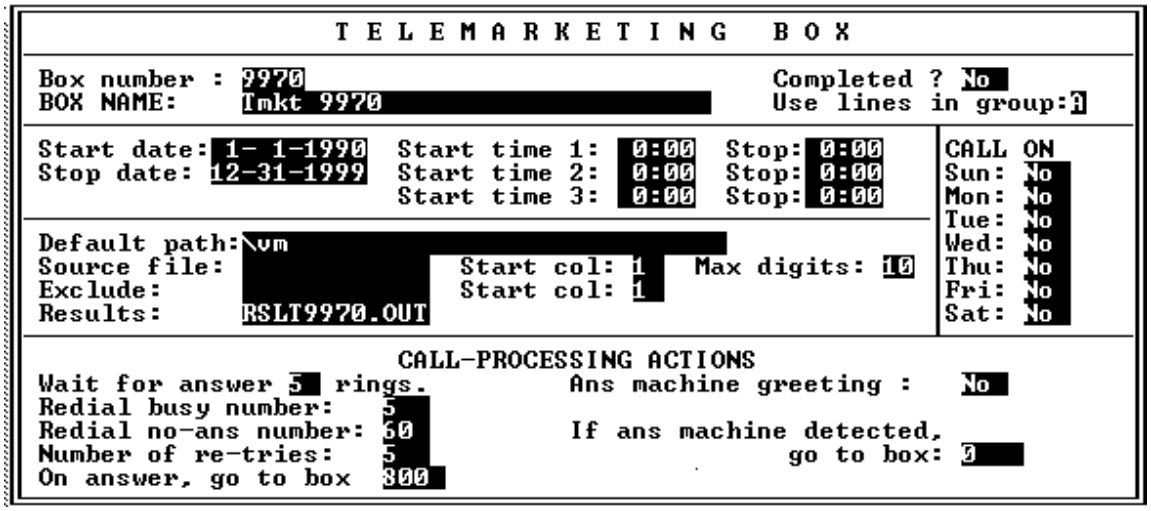
29.2.15 QUESTION BOX SCREEN


QUESTION BOX
Box number : 200
BOX NAME :
Greeting recorded: No
Owner box:
Replay digit answers for verification : No
Voice answers: No
Trigger notification? No
After questions, Say Goodbye - box
Exit digits:
Question Recorded?
Answer Type
Min # of digits
Max Length
Max Silence
Question 1: No Voice 1 30 3
Question 2: No Voice 1 30 3
Question 3: No Voice 1 30 3
Question 4: No Voice 1 30 3
Question 5: No Voice 1 30 3
Question 6: No Voice 1 30 3
Question 7: No Voice 1 30 3
Question 8: No Voice 1 30 3
Question 9: No Voice 1 30 3
Question 10: No Voice 1 30 3
Old msgs : 0
New msgs : 0

29.2.16 ROUTING BOX SCREEN

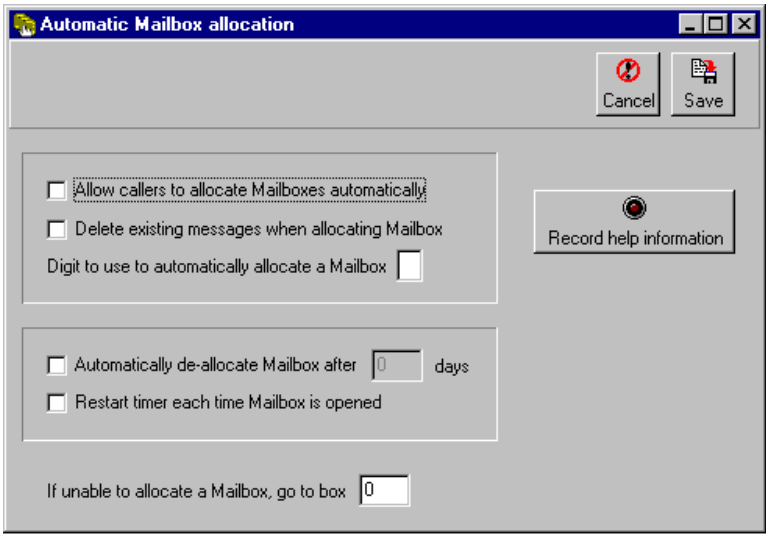

ROUTING BOX
Box number : 800
BOX NAME : Main Greeting
Greeting recorded : No
Owner: 70
Number of times to play the greeting : 1
Number of seconds to wait for a digit: 1
If no digits dialed, Go to box ... - box 821
If invalid digit dialed, go to box 800
Route the call based on : Digit dialed
When digit received, wait for more digits? Yes
Destination for digit 1 :
2 :
3 :
4 :
5 :
6 :
7 :
8 :
9 :
0 : 888
* : 9998
# : 9992
Voice:

29.2.17 TELEMARKETING BOX SCREEN

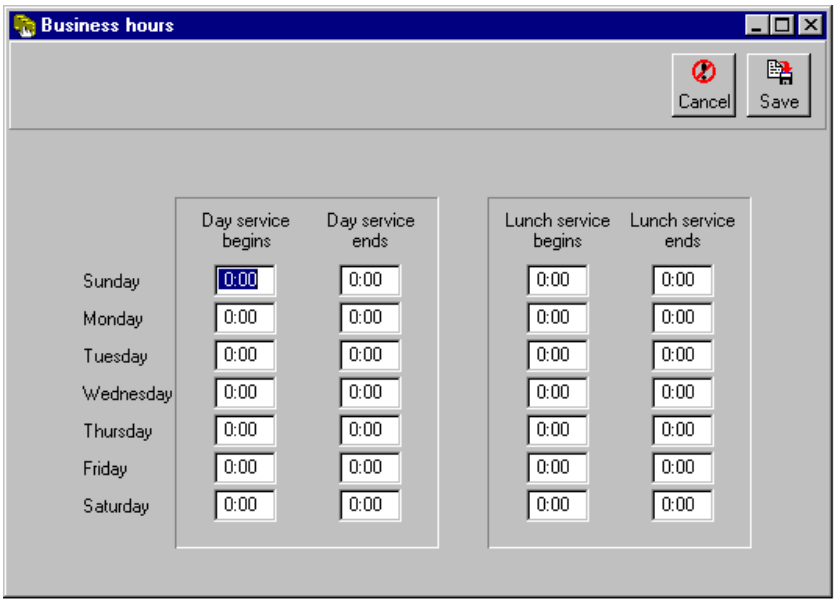


29.3 Windows-based VP system System Information Screens

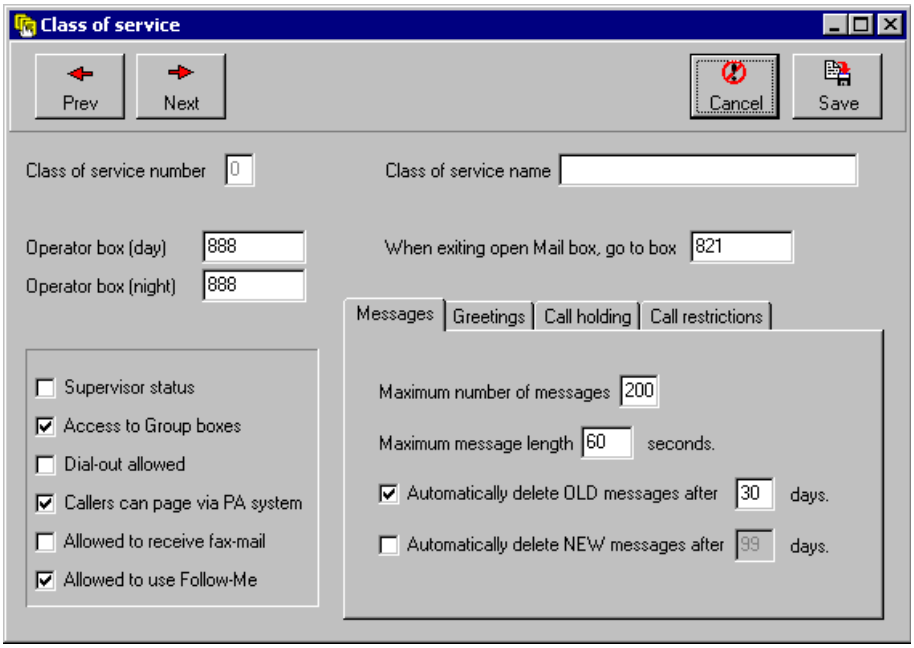
29.3.1 AUTOMATIC MAILBOX ALLOCATION SCREEN


Automatic Mailbox allocation
Cancel
Save
Allow callers to allocate Mailboxes automatically
Delete existing messages when allocating Mailbox
Digit to use to automatically allocate a Mailbox
Record help information
Automatically de-allocate Mailbox after 0 days
Restart timer each time Mailbox is opened
If unable to allocate a Mailbox, go to box 0

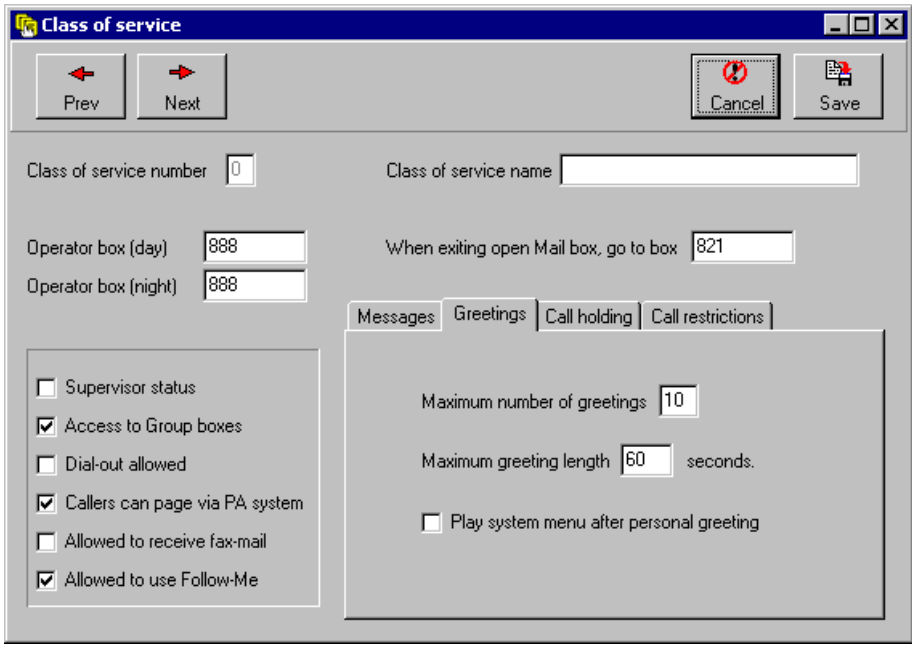
29.3.2 BUSINESS HOURS SCREEN



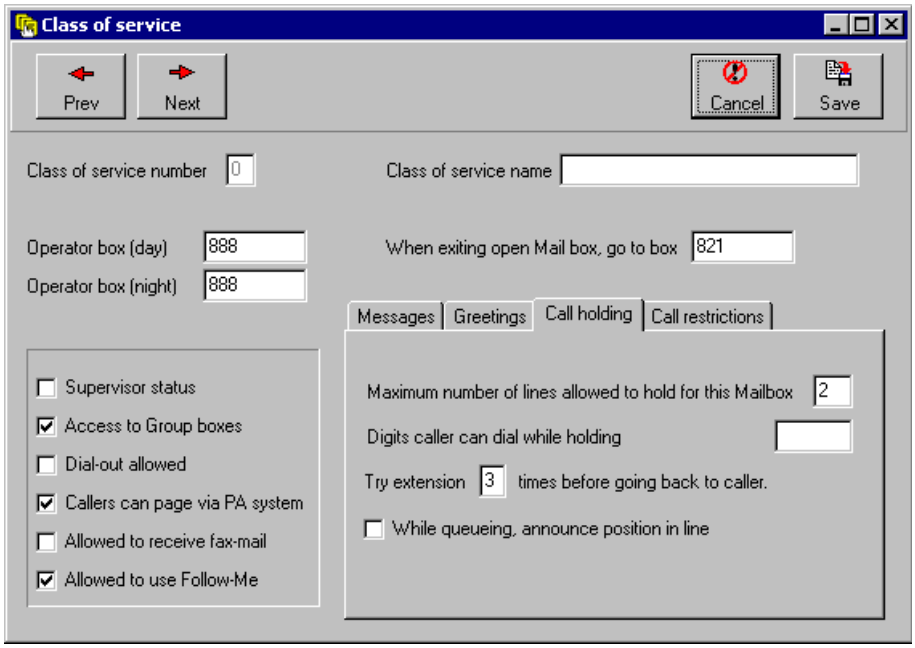
29.3.3 CLASS OF SERVICE SCREEN, MESSAGE TAB



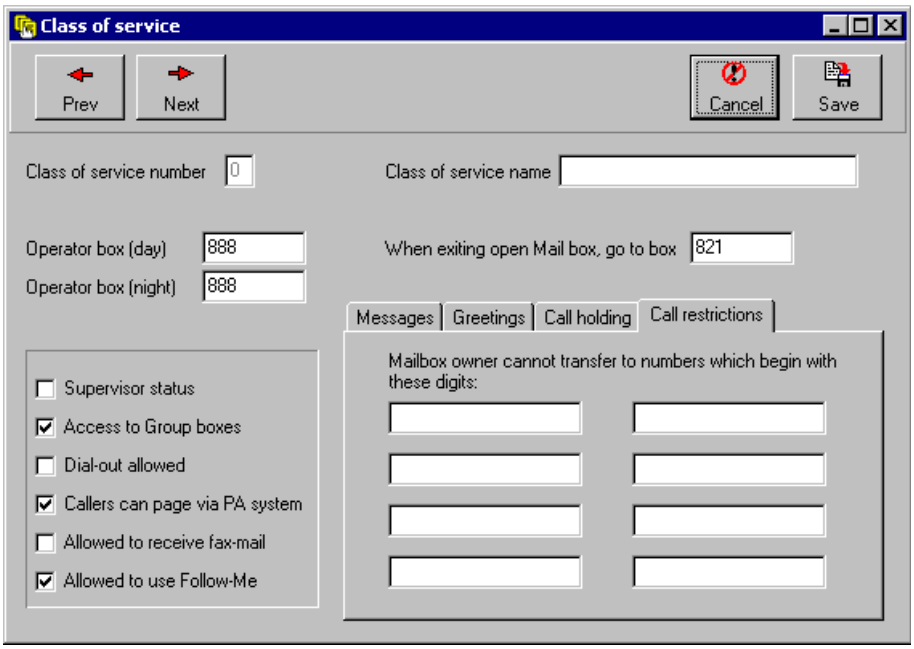
29.3.4 CLASS OF SERVICE SCREEN, GREETINGS TAB



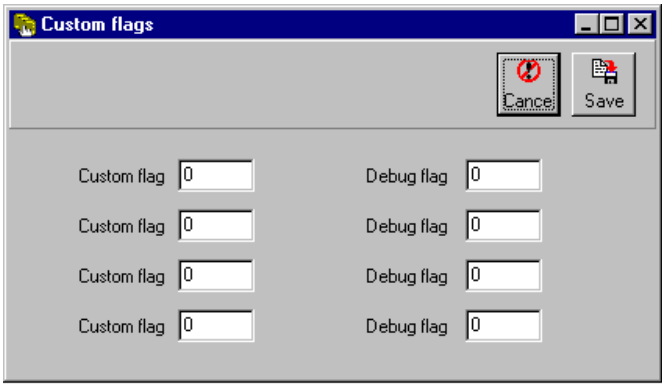
29.3.5 CLASS OF SERVICE SCREEN, CALL HOLDING TAB



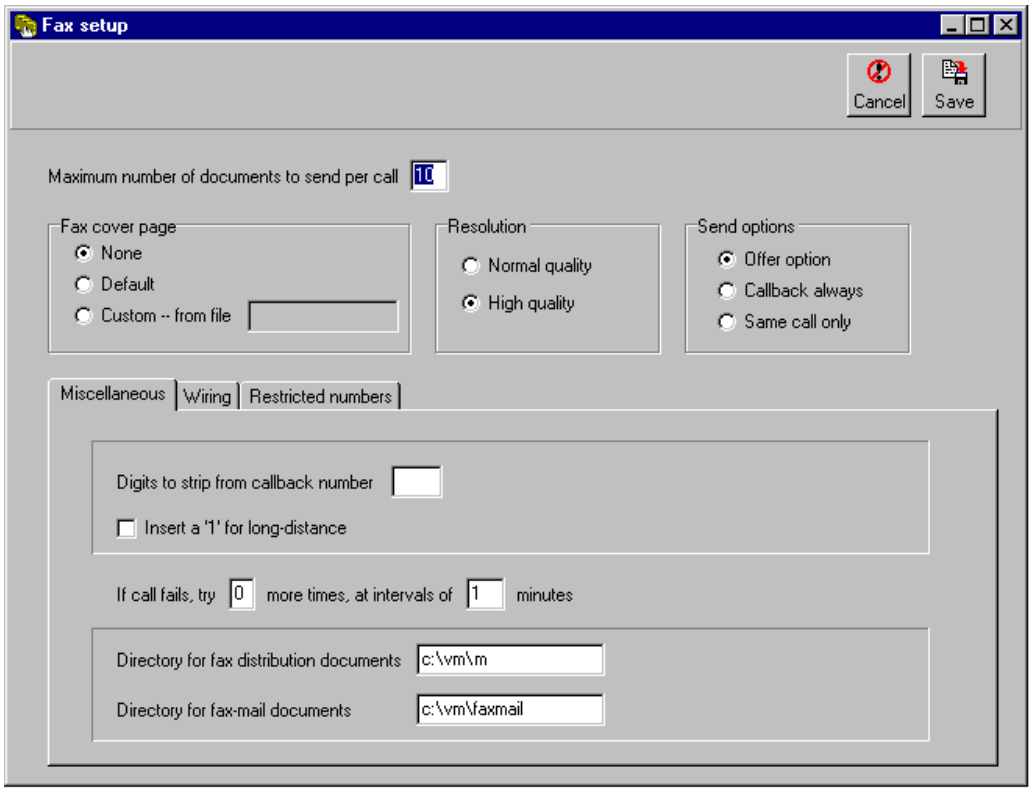
29.3.6 CLASS OF SERVICE SCREEN, CALL RESTRICTIONS TAB



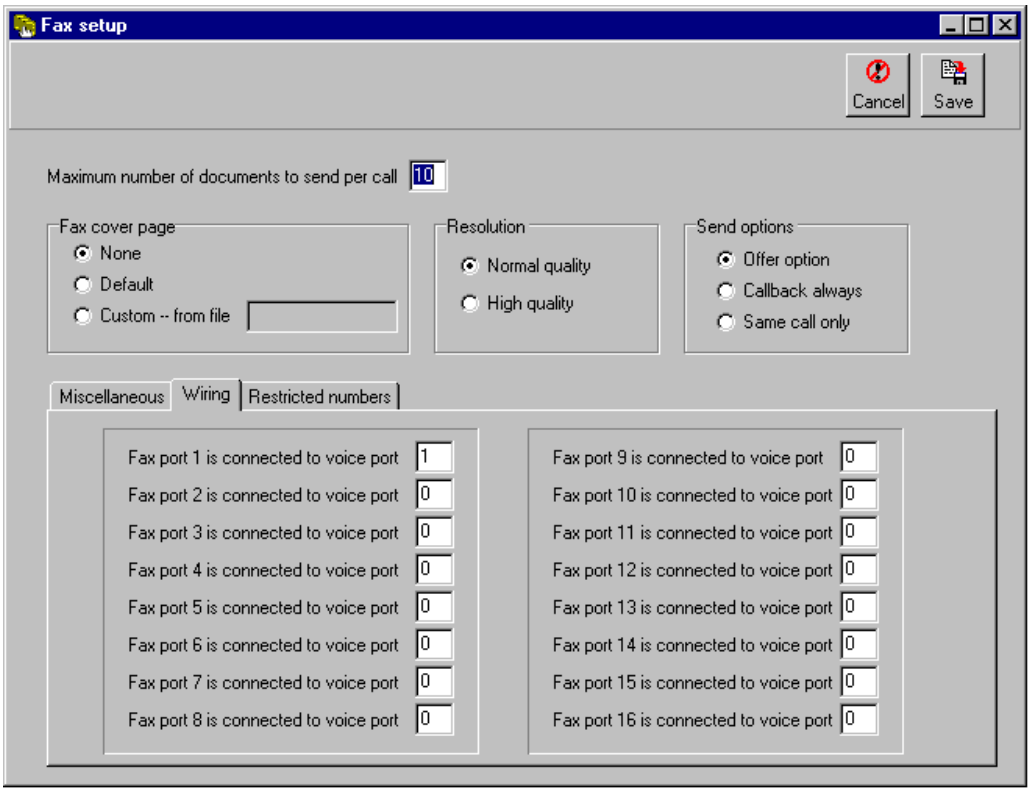
29.3.7 CUSTOM FLAGS SCREEN



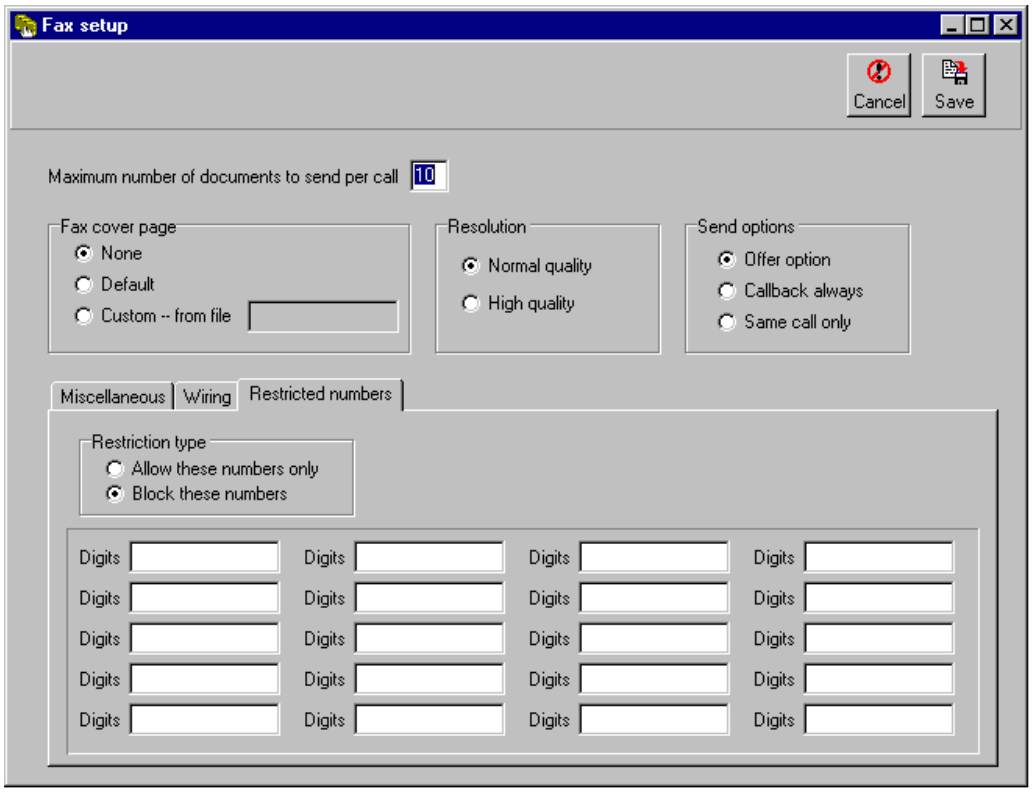
29.3.8 FAX SETUP SCREEN, MISCELLANEOUS TAB



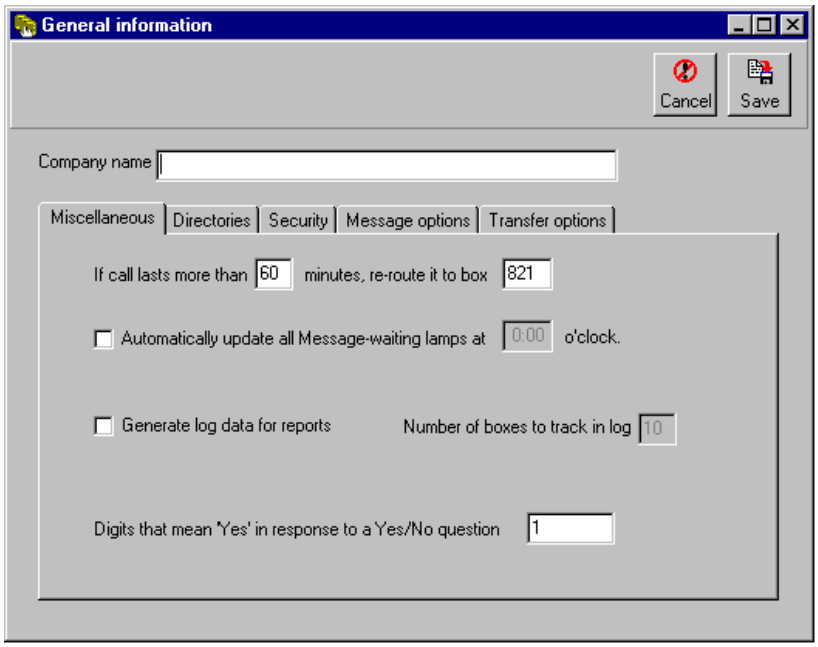
29.3.9 FAX SETUP SCREEN, WIRING TAB


Fax setup
Cancel
Save
Maximum number of documents to send per call
10
Fax cover page
None
Default
Custom -- from file
Resolution
Normal quality
High quality
Send options
Offer option
Callback always
Same call only
Miscellaneous
Wiring
Restricted numbers
Fax port 1 is connected to voice port 1
Fax port 2 is connected to voice port 0
Fax port 3 is connected to voice port 0
Fax port 4 is connected to voice port 0
Fax port 5 is connected to voice port 0
Fax port 6 is connected to voice port 0
Fax port 7 is connected to voice port 0
Fax port 8 is connected to voice port 0
Fax port 9 is connected to voice port 0
Fax port 10 is connected to voice port 0
Fax port 11 is connected to voice port 0
Fax port 12 is connected to voice port 0
Fax port 13 is connected to voice port 0
Fax port 14 is connected to voice port 0
Fax port 15 is connected to voice port 0
Fax port 16 is connected to voice port 0

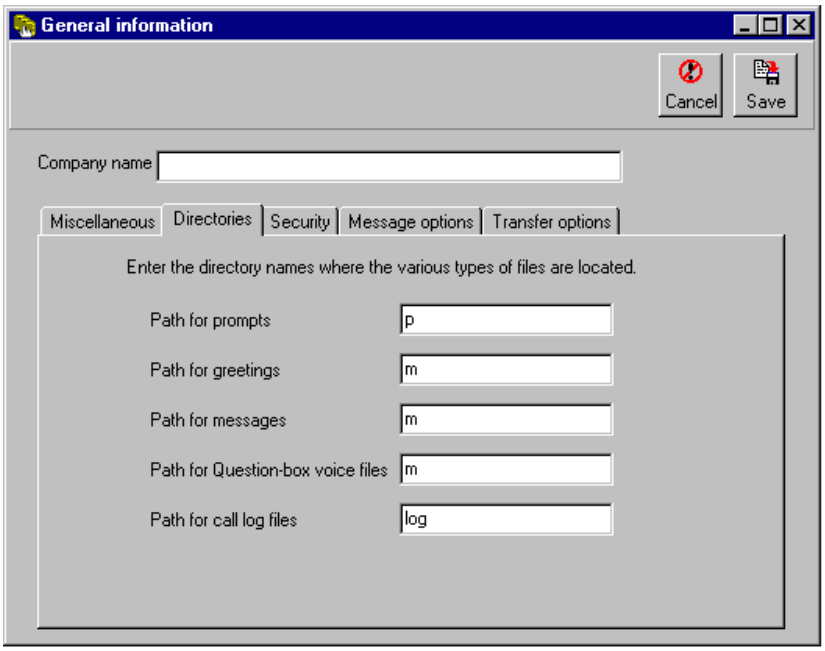
29.3.10 FAX SETUP SCREEN, RESTRICTED NUMBERS TAB



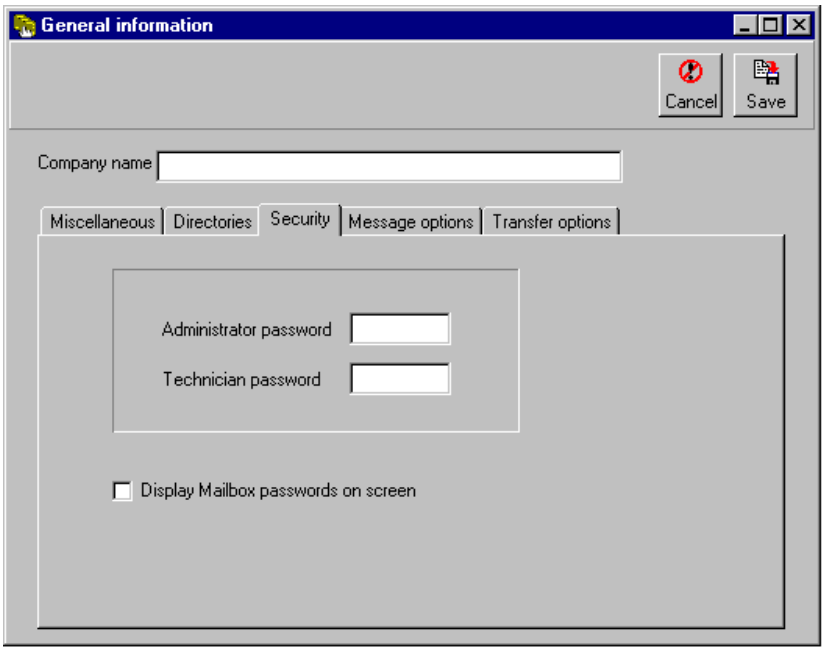
29.3.11 GENERAL INFORMATION SCREEN, MISCELLANEOUS TAB



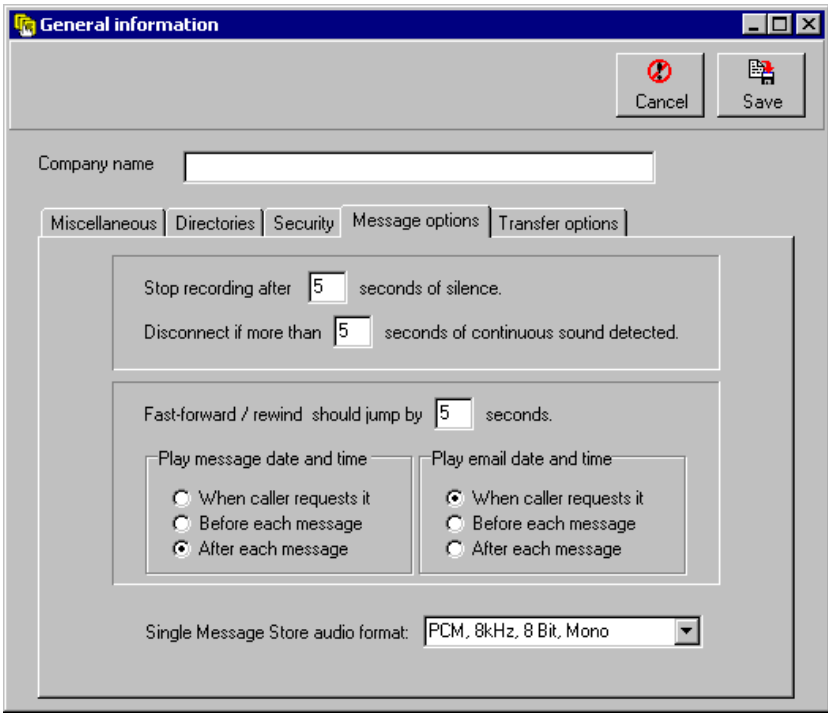
29.3.12 GENERAL INFORMATION SCREEN, DIRECTORIES TAB



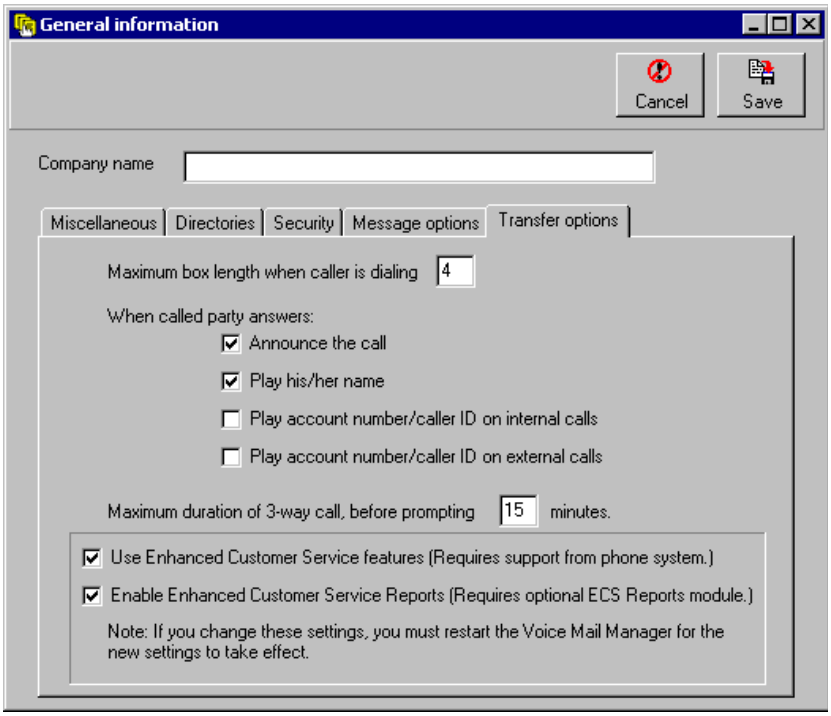
29.3.13 GENERAL INFORMATION SCREEN, SECURITY TAB



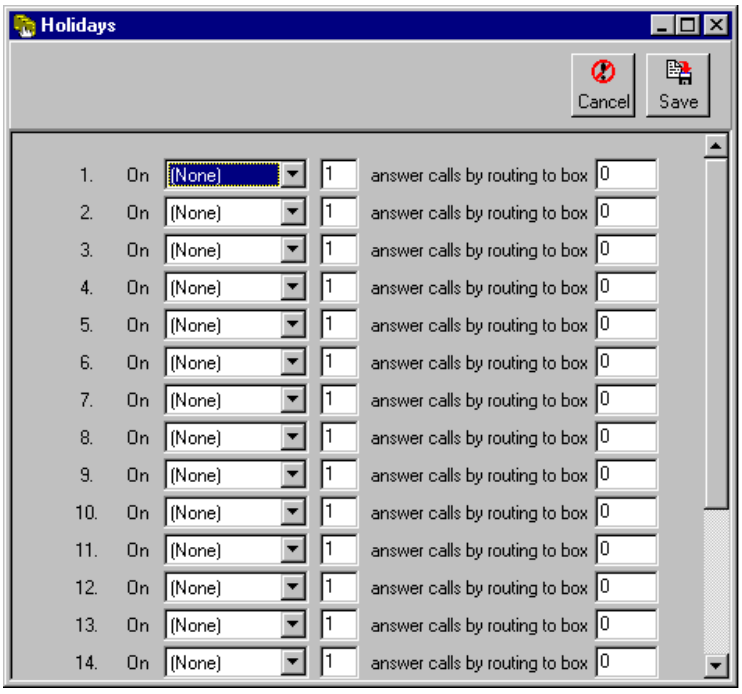
29.3.14 GENERAL INFORMATION SCREEN, MESSAGE OPTIONS TAB



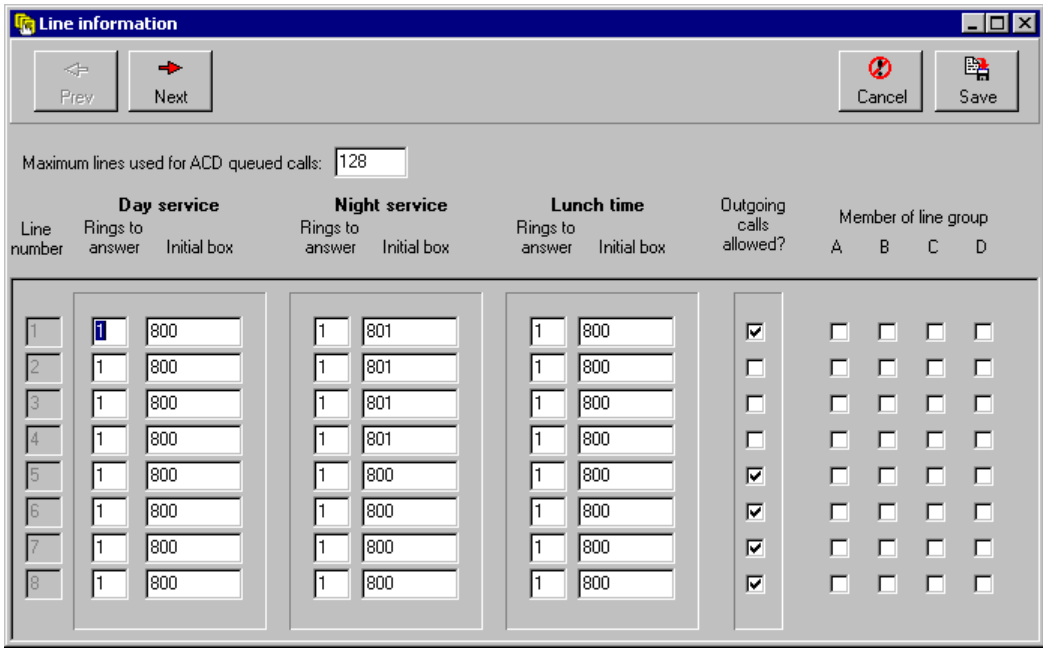
29.3.15 GENERAL INFORMATION SCREEN, TRANSFER OPTIONS TAB


General information
Cancel
Save
Company name
Miscellaneous
Directories
Security
Message options
Transfer options
Maximum box length when caller is dialing 4
When called party answers:
Announce the call
Play his/her name
Play account number/caller ID on internal calls
Play account number/caller ID on external calls
Maximum duration of 3-way call, before prompting 15 minutes.
Use Enhanced Customer Service features (Requires support from phone system.)
Enable Enhanced Customer Service Reports (Requires optional ECS Reports module.)
Note: If you change these settings, you must restart the Voice Mail Manager for the new settings to take effect.

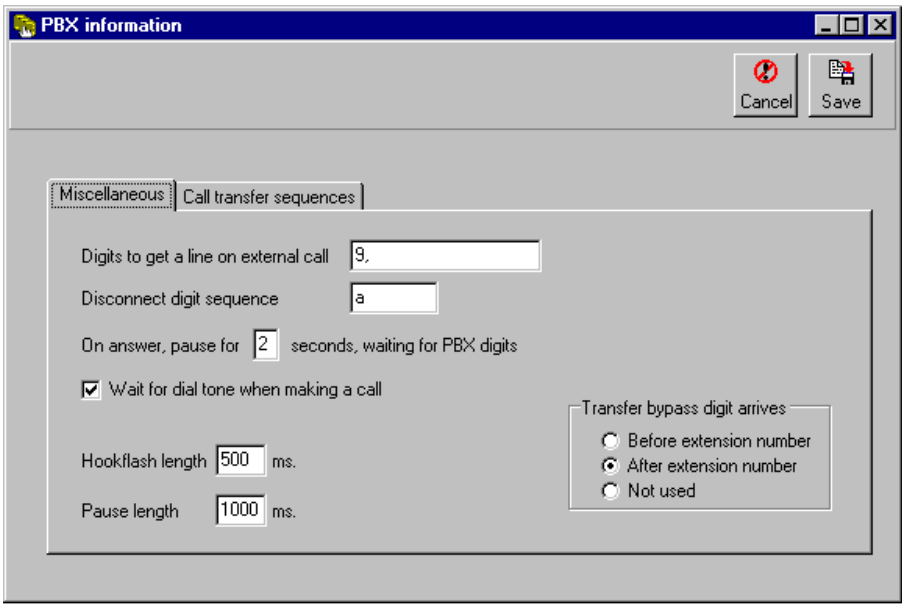
29.3.16 HOLIDAYS SCREEN


Holidays
Cancel
Save
1. On (None) 1 answer calls by routing to box 0
2. On (None) 1 answer calls by routing to box 0
3. On (None) 1 answer calls by routing to box 0
4. On (None) 1 answer calls by routing to box 0
5. On (None) 1 answer calls by routing to box 0
6. On (None) 1 answer calls by routing to box 0
7. On (None) 1 answer calls by routing to box 0
8. On (None) 1 answer calls by routing to box 0
9. On (None) 1 answer calls by routing to box 0
10. On (None) 1 answer calls by routing to box 0
11. On (None) 1 answer calls by routing to box 0
12. On (None) 1 answer calls by routing to box 0
13. On (None) 1 answer calls by routing to box 0
14. On (None) 1 answer calls by routing to box 0

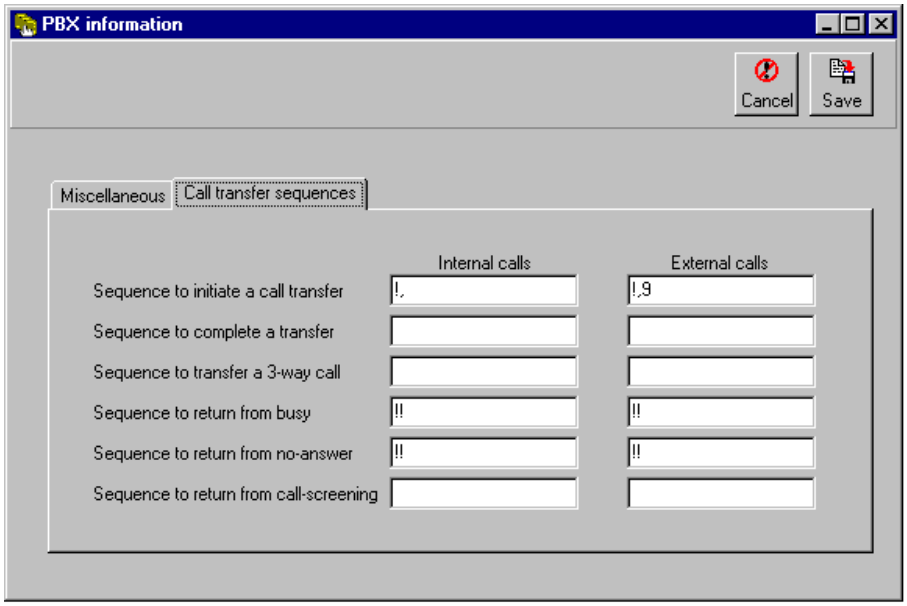
29.3.17 LINE INFORMATION SCREEN



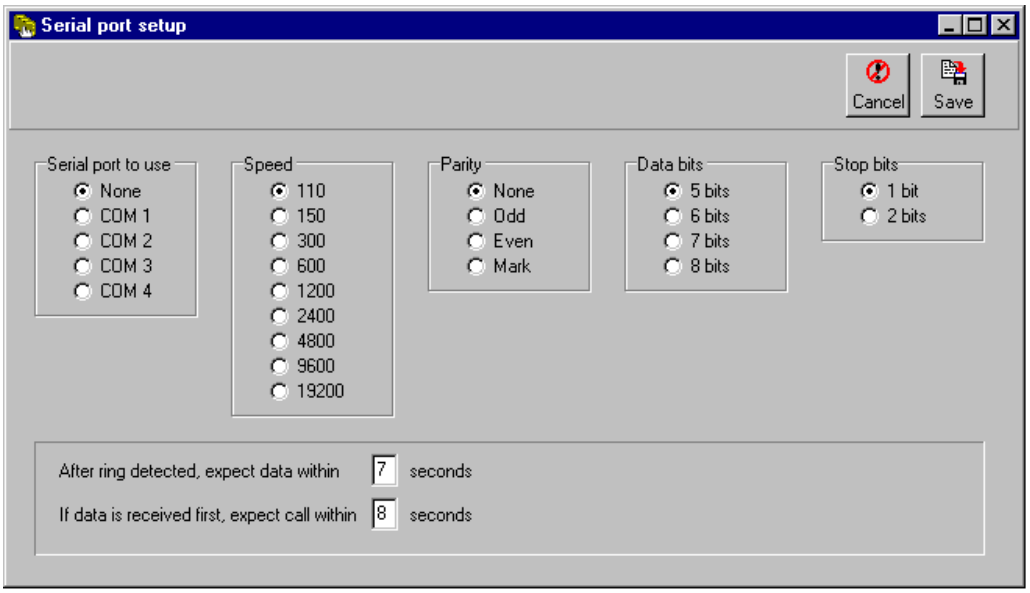
29.3.18 PBX INFORMATION SCREEN, MISCELLANEOUS TAB



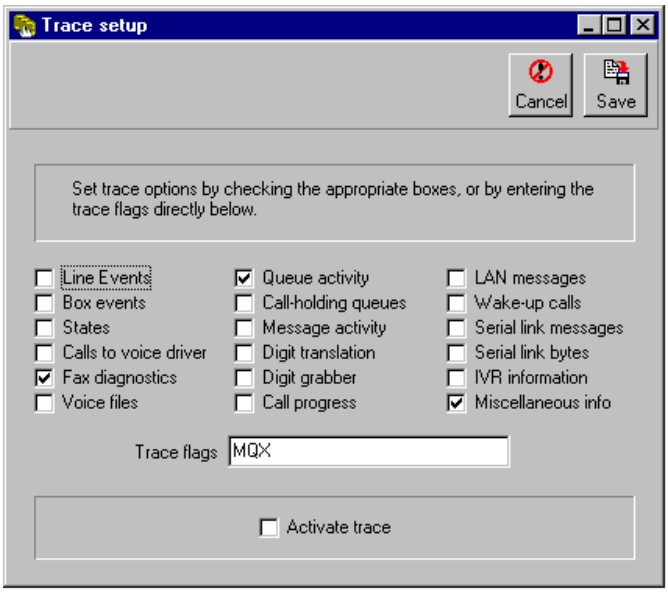
29.3.19 PBX INFORMATION SCREEN, CALL TRANSFER SEQUENCES TAB



29.3.20 SERIAL PORT SETUP SCREEN

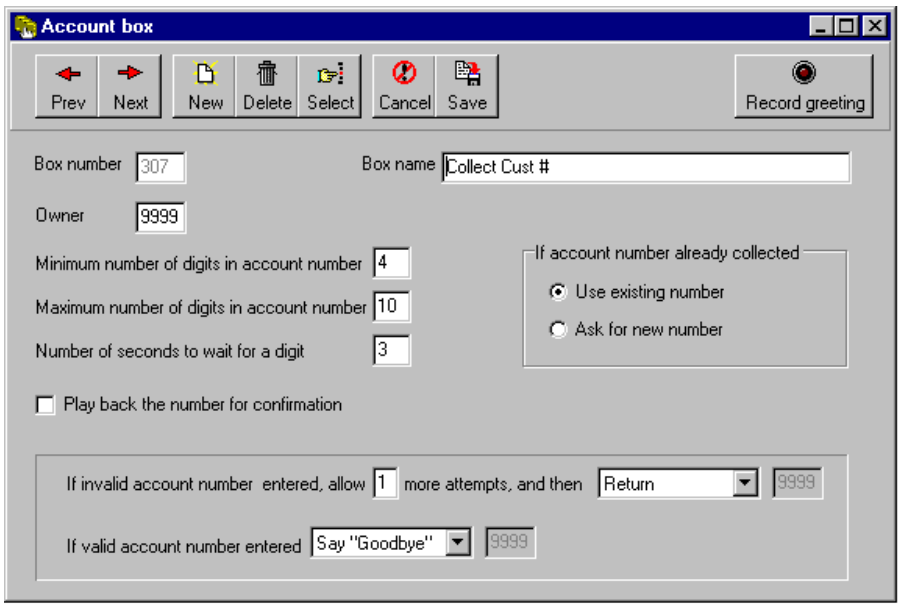


29.3.21 TRACE SETUP SCREEN

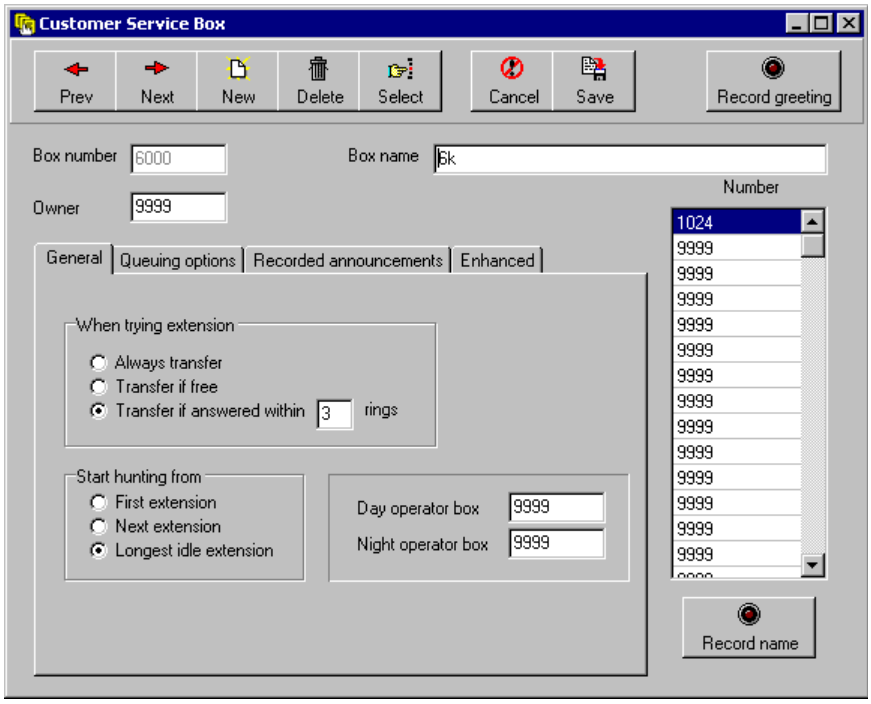


29.4 Windows-based VP system Box Setup Screens

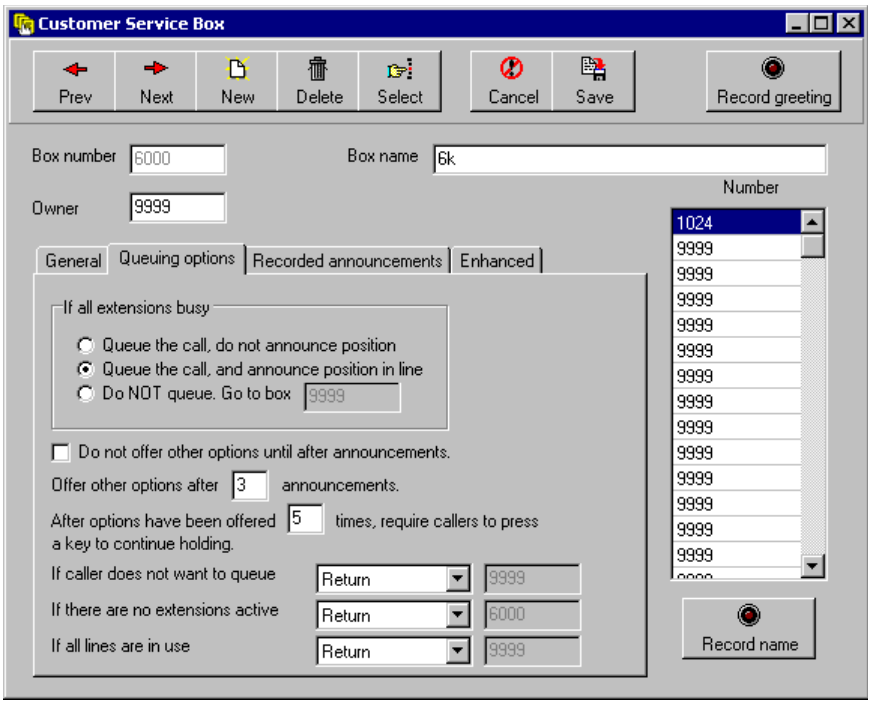
29.4.1 ACCOUNT BOX SCREEN



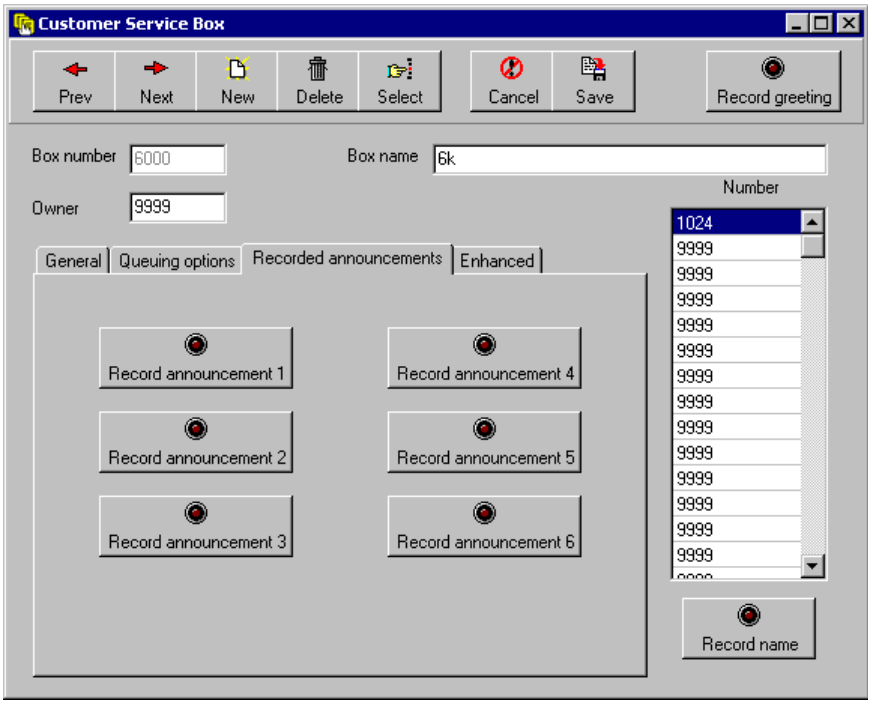
29.4.2 ACD BOX / CUSTOMER SERVICE BOX SCREEN, GENERAL TAB



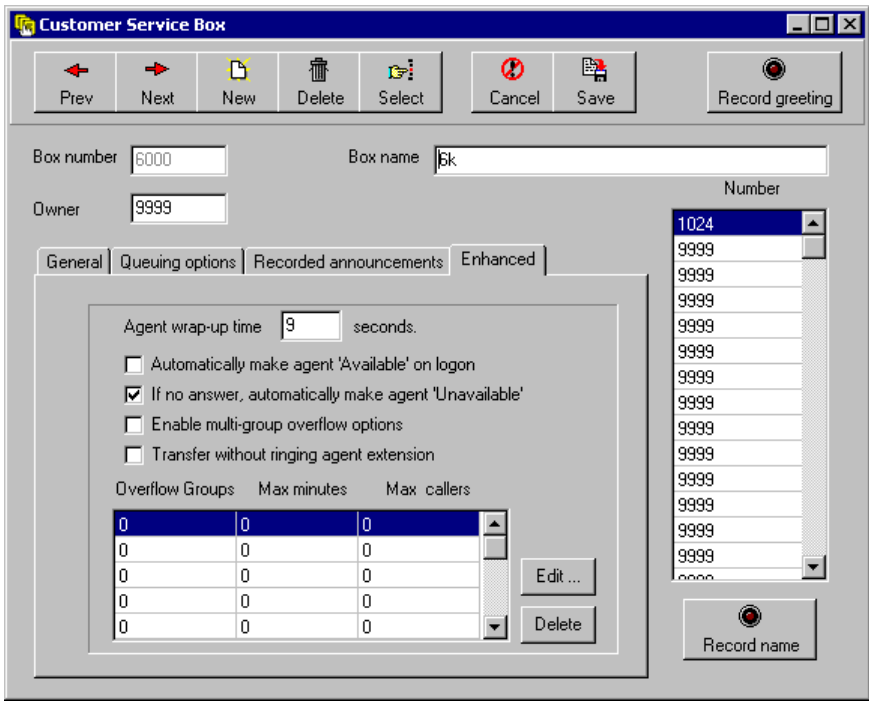
29.4.3 ACD BOX / CUSTOMER SERVICE BOX SCREEN, QUEUING OPTIONS TAB



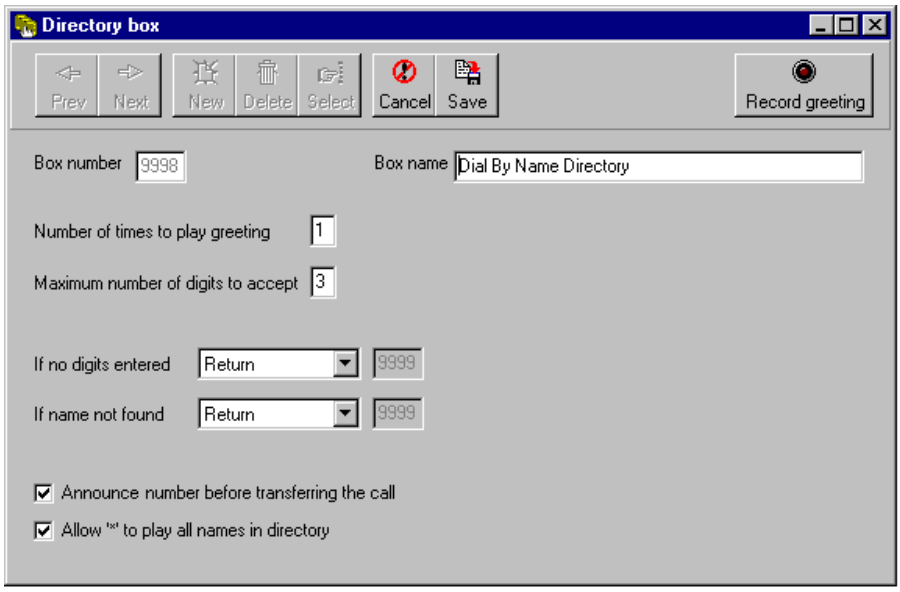
29.4.4 ACD BOX / CUSTOMER SERVICE BOX SCREEN, RECORDED ANNOUNCEMENTS TAB



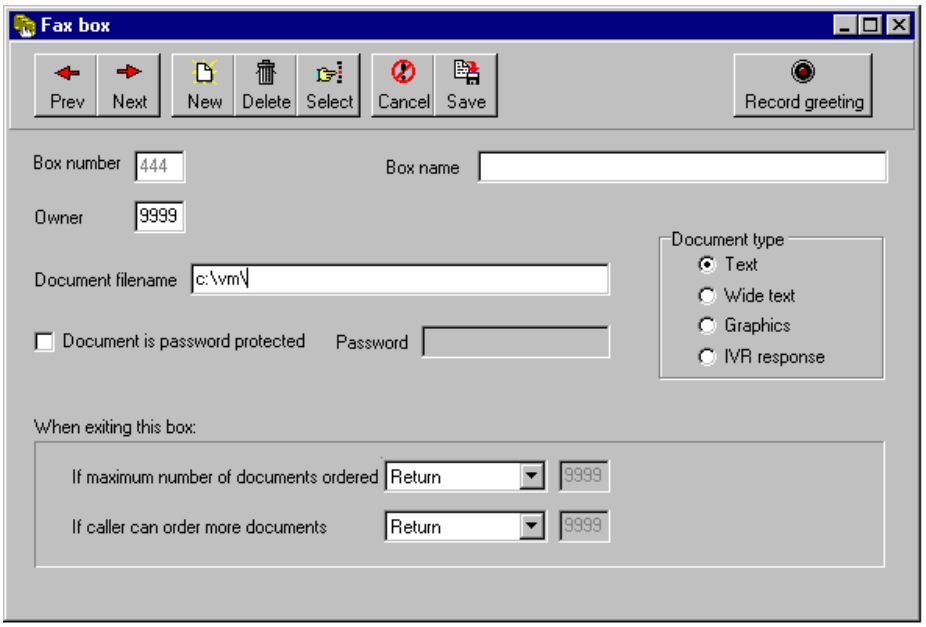
29.4.5 ACD BOX / CUSTOMER SERVICE BOX SCREEN, ENHANCED TAB



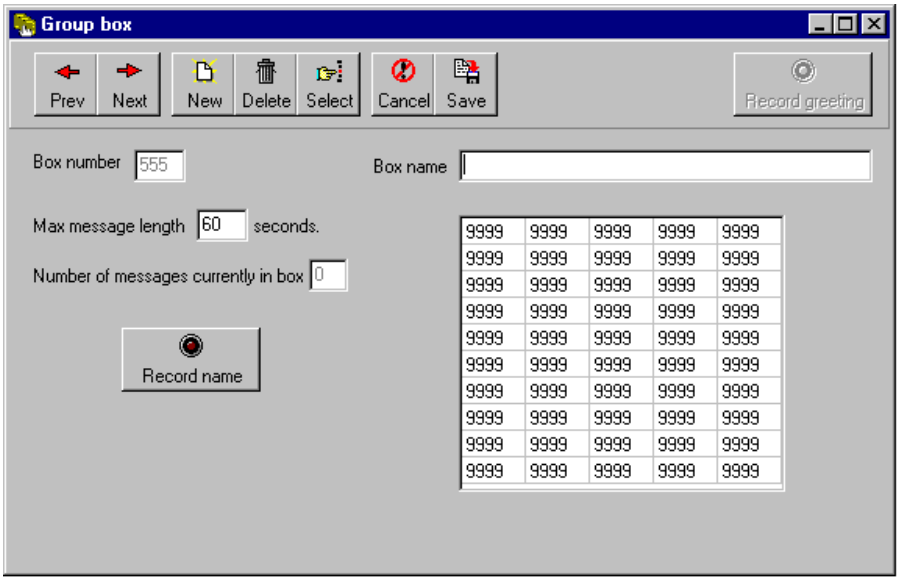
29.4.6 DIRECTORY BOX SCREEN



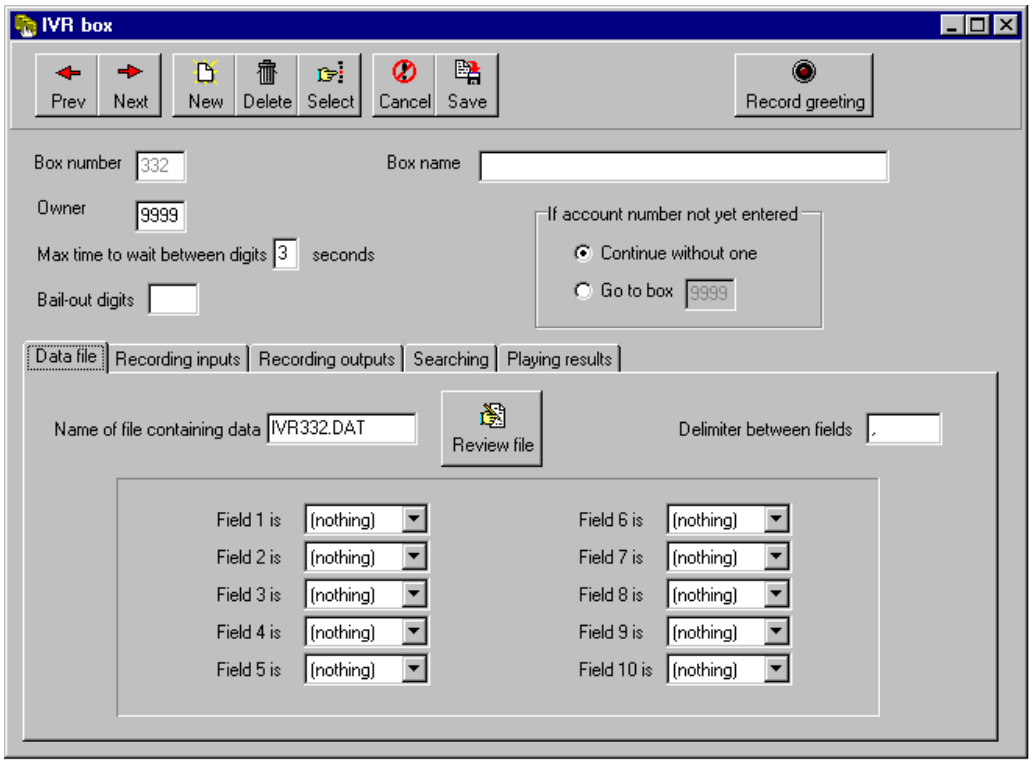
29.4.7 FAX BOX SCREEN



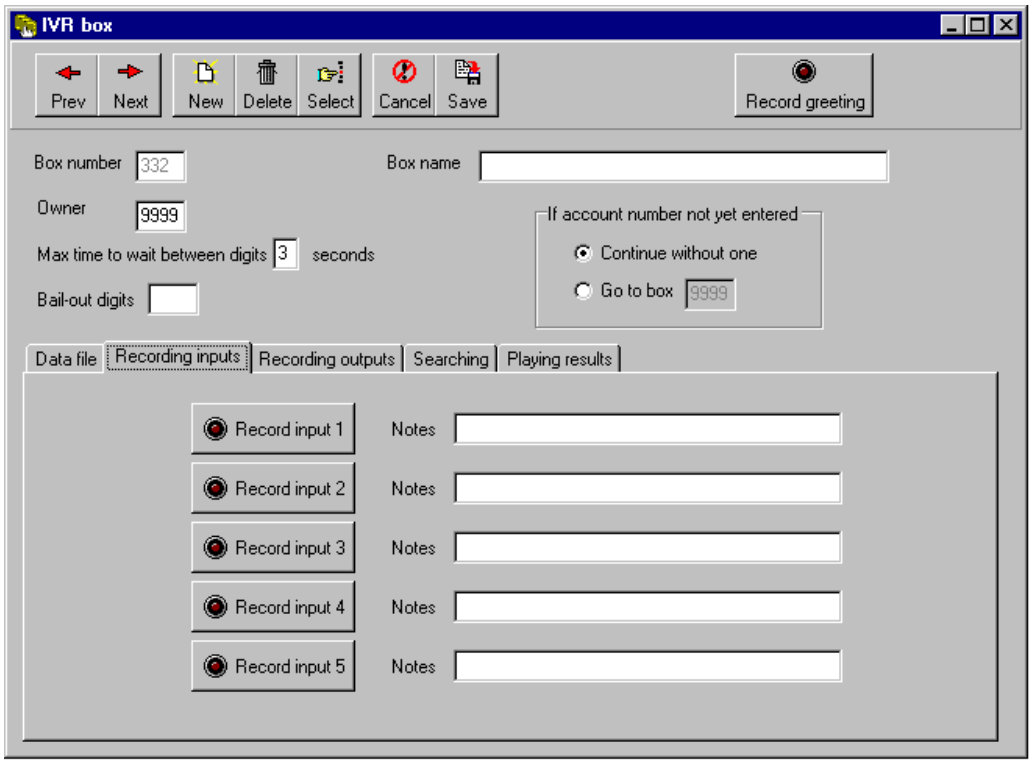
29.4.8 GROUP BOX SCREEN



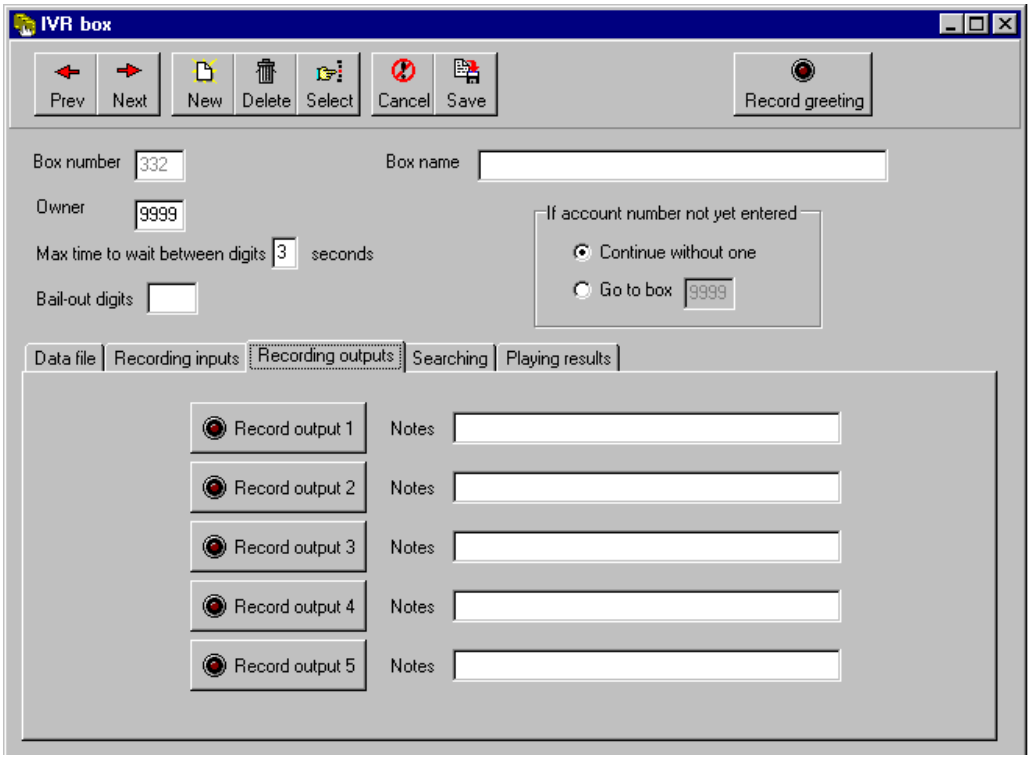
29.4.9 IVR BOX SCREEN, DATA FILE TAB



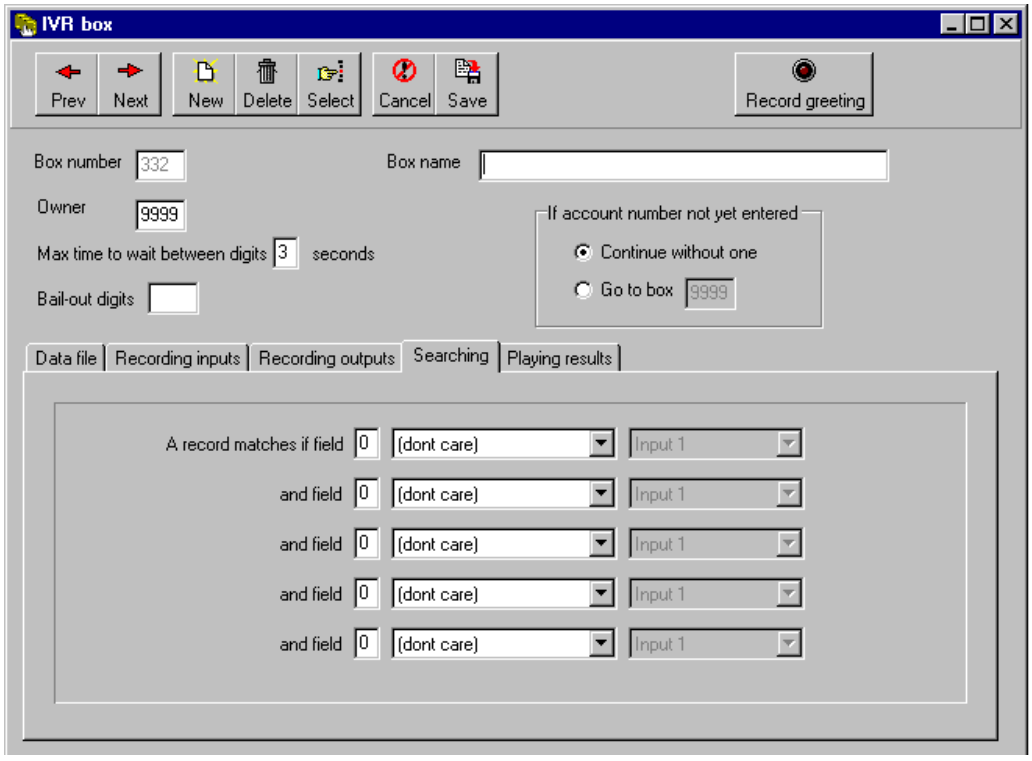
29.4.10 IVR BOX SCREEN, RECORDING INPUTS TAB



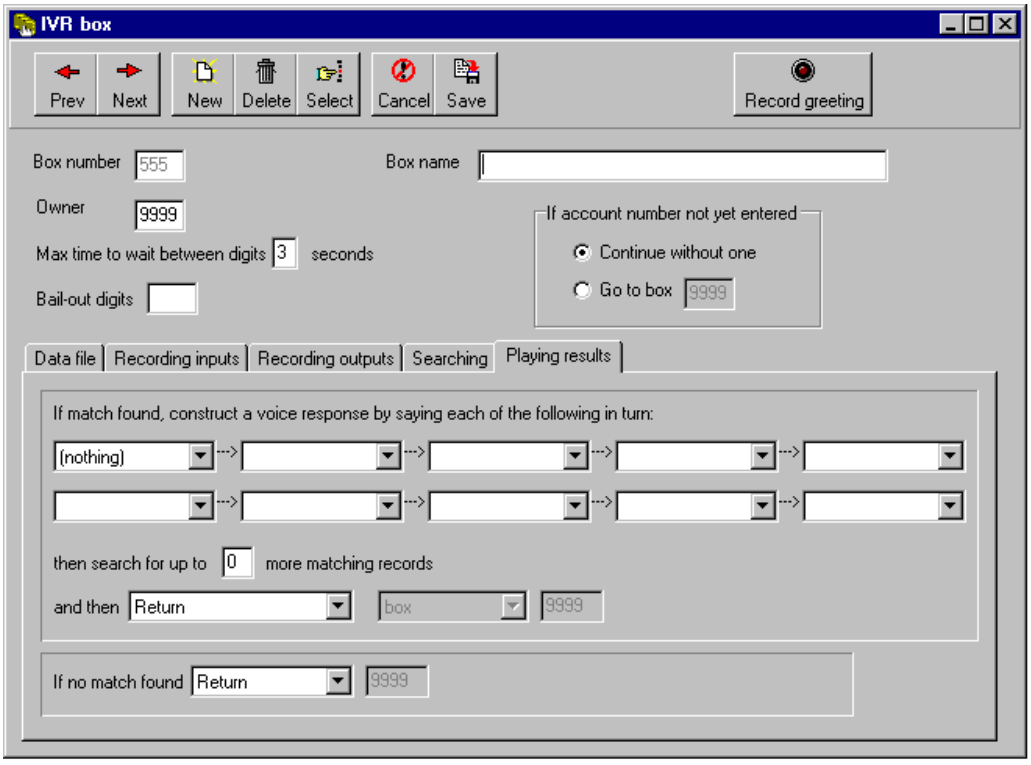
29.4.11 IVR BOX SCREEN, RECORDING OUTPUTS TAB



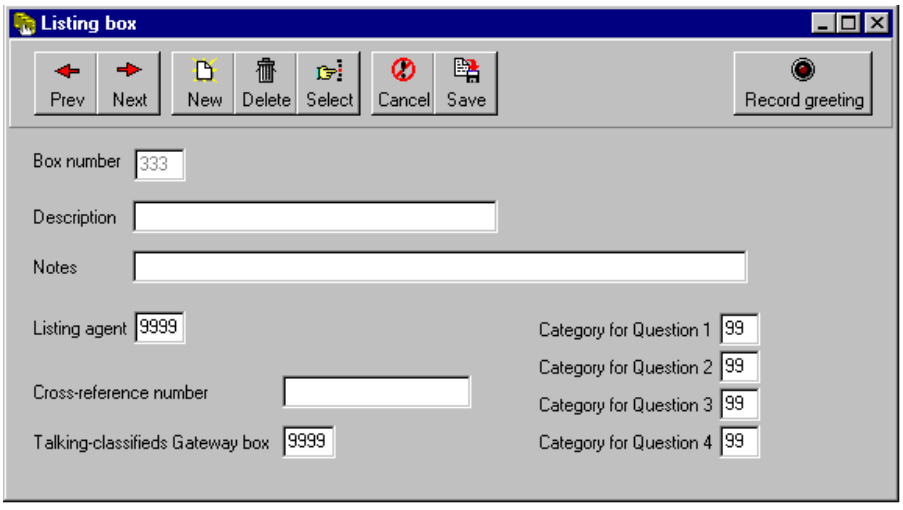
29.4.12 IVR BOX SCREEN, SEARCHING TAB



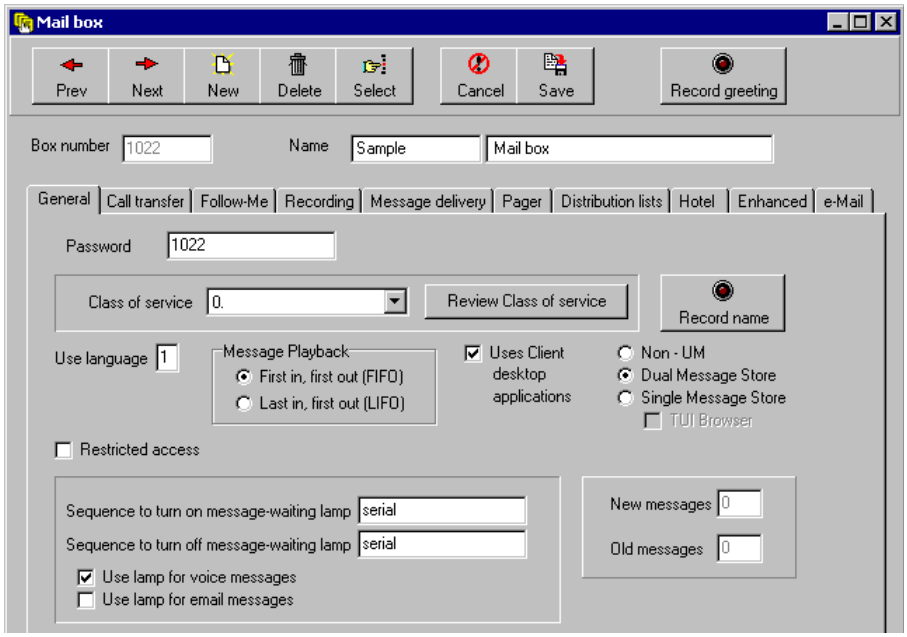
29.4.13 IVR BOX SCREEN, PLAYING RESULTS TAB



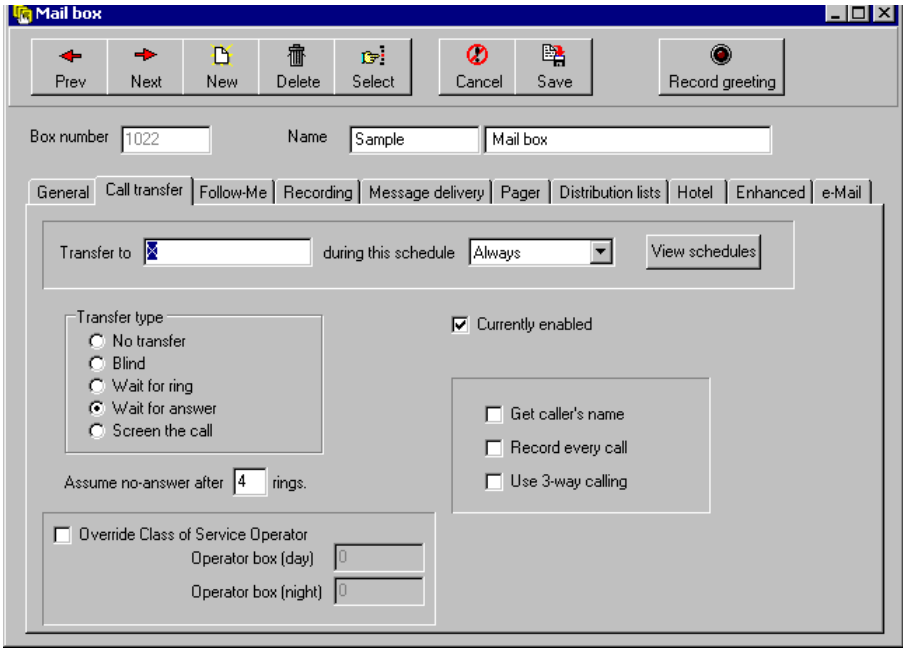
29.4.14 LISTING BOX SCREEN



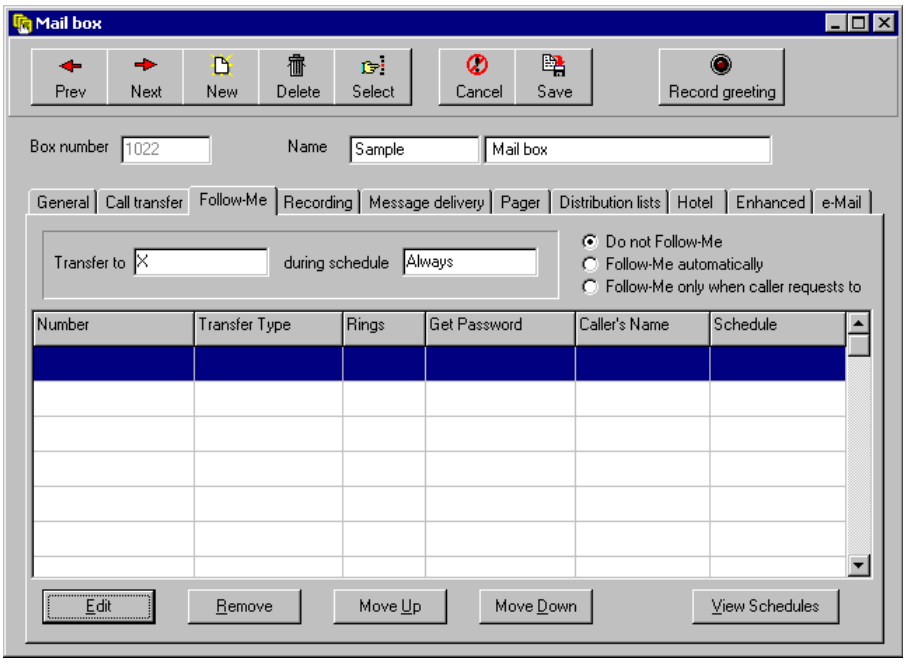
29.4.15 MAILBOX SCREEN, GENERAL TAB



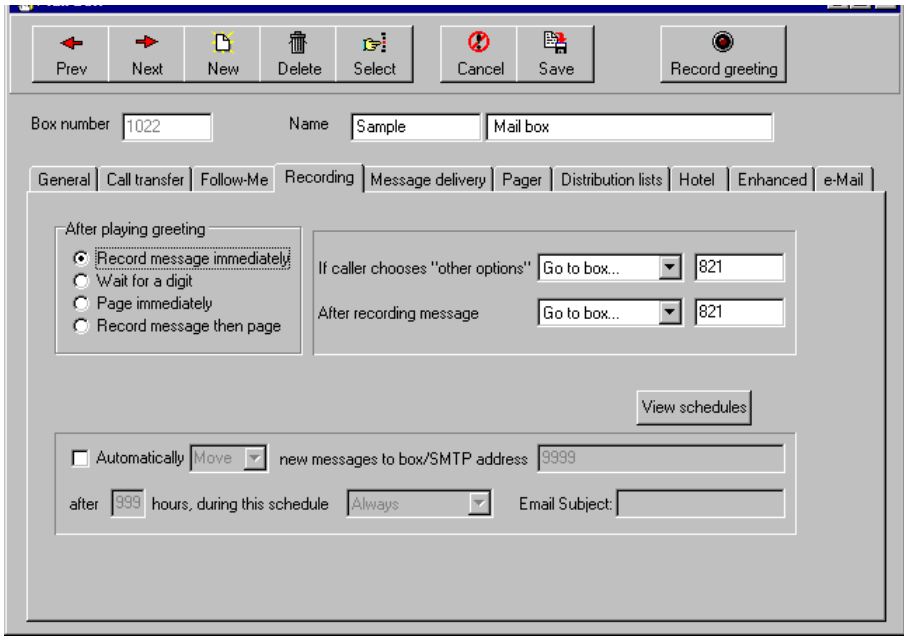
29.4.16 MAILBOX SCREEN, CALL TRANSFER TAB



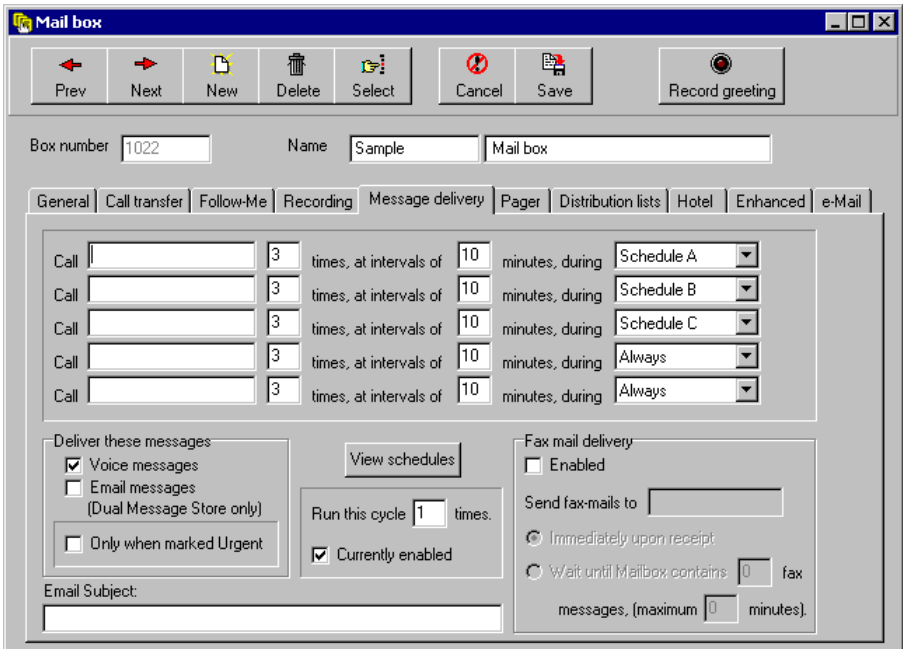
29.4.17 MAILBOX SCREEN, FOLLOW-ME TAB



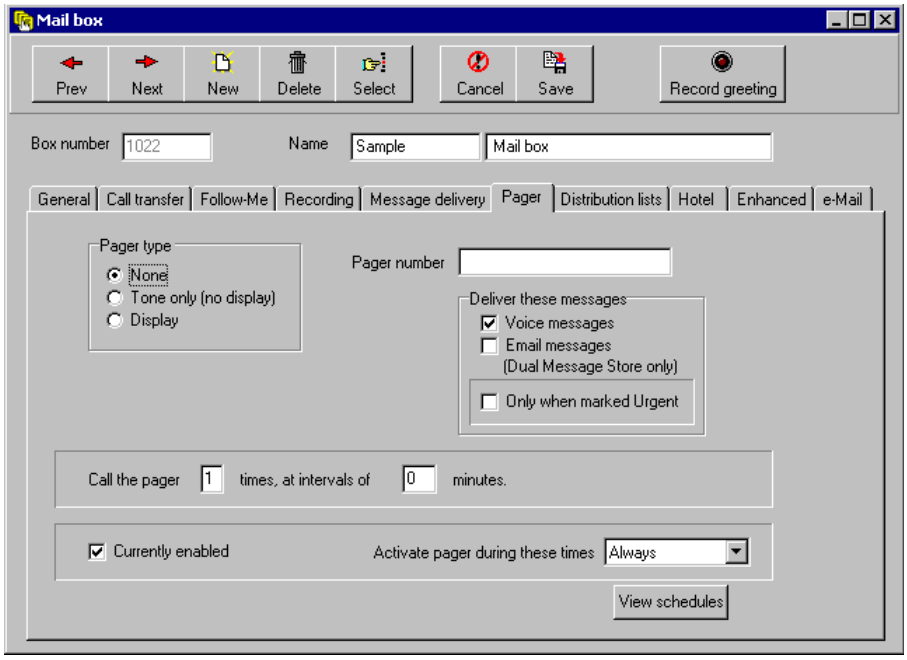
29.4.18 MAILBOX SCREEN, RECORDING TAB



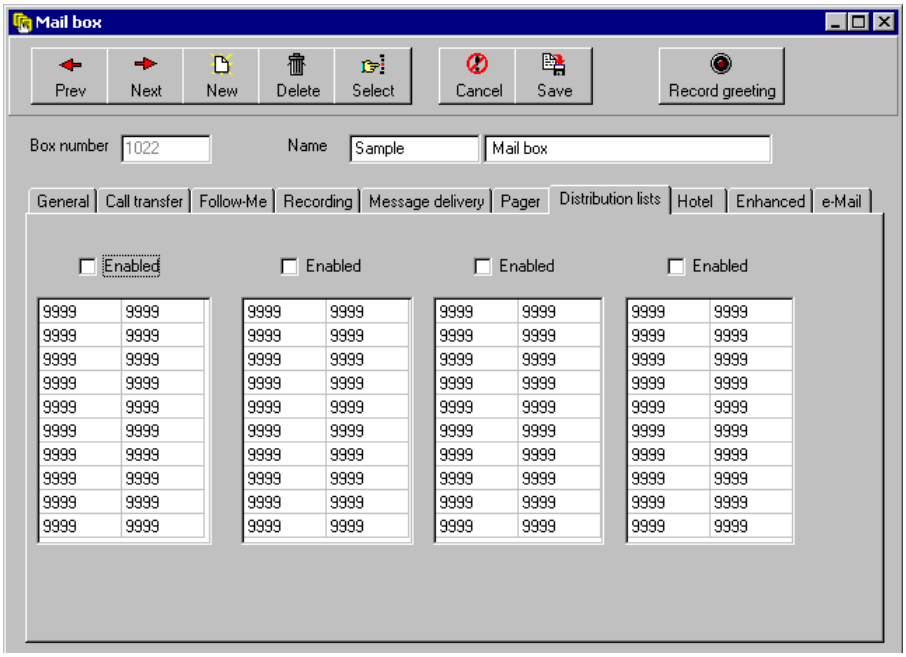
29.4.19 MAILBOX SCREEN, MESSAGE DELIVERY TAB



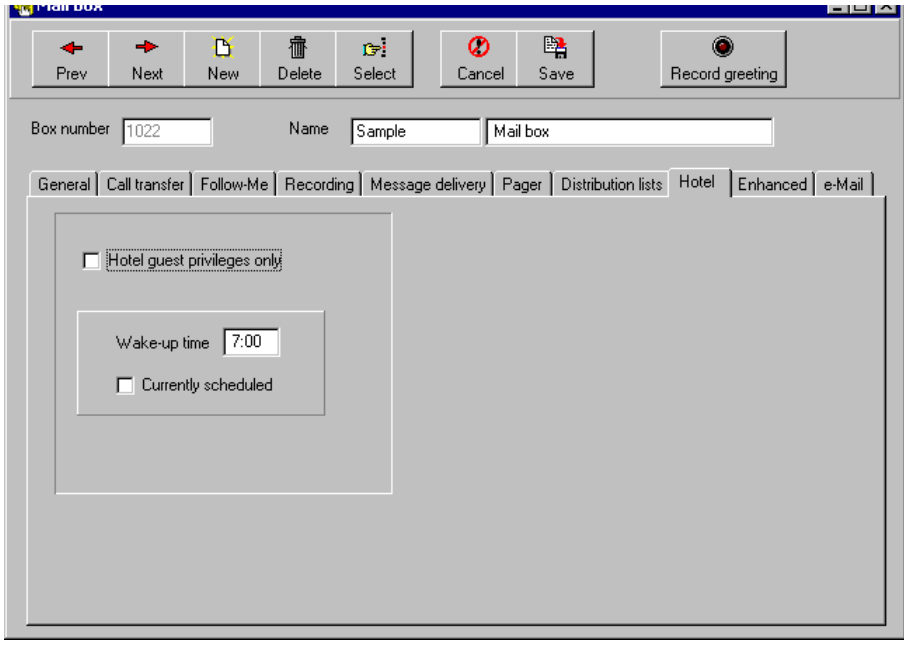
29.4.20 MAILBOX SCREEN, PAGER TAB



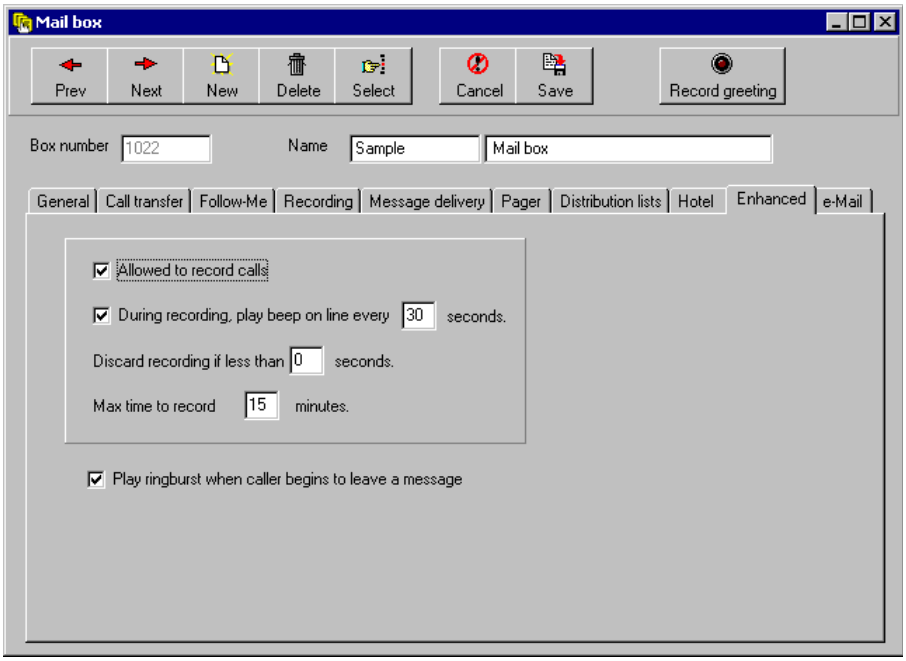
29.4.21 MAILBOX SCREEN, DISTRIBUTION LISTS TAB



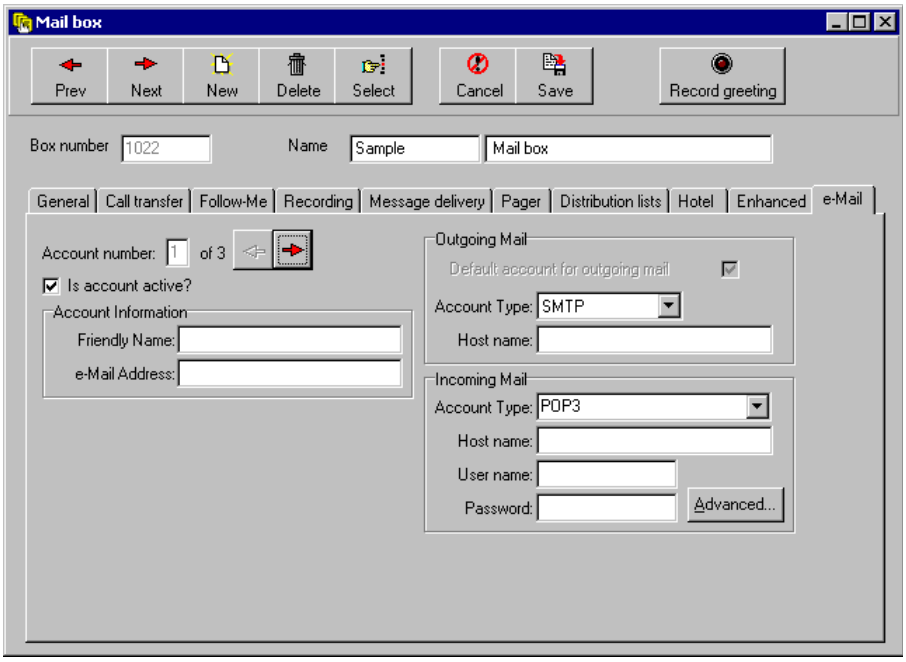
29.4.22 MAILBOX SCREEN, HOTEL TAB



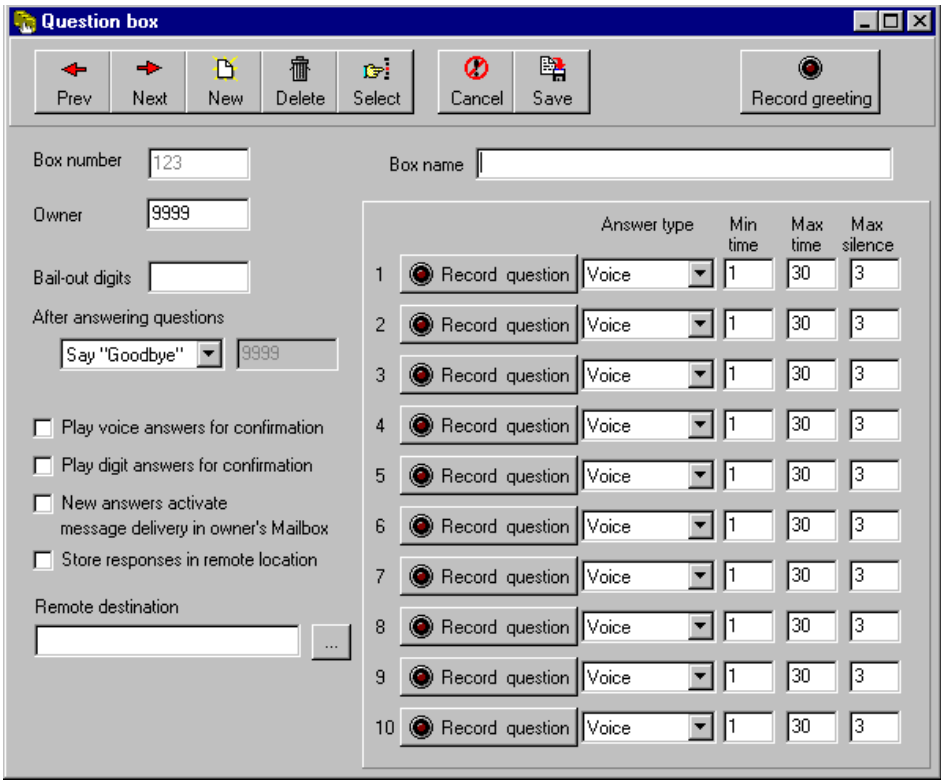
29.4.23 MAILBOX SCREEN, ENHANCED TAB



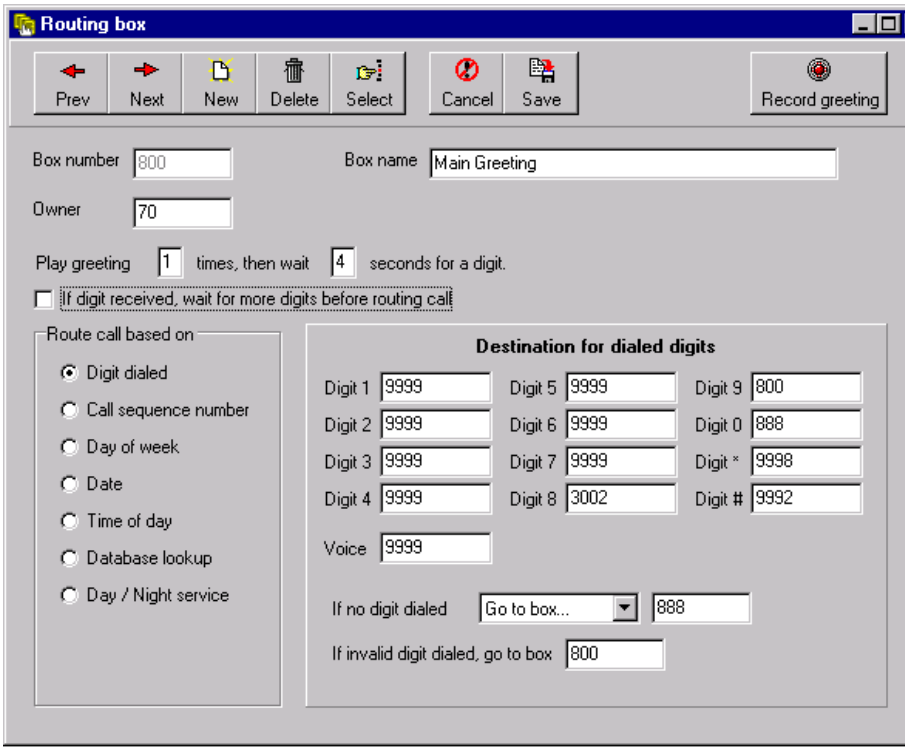
29.4.24 MAILBOX SCREEN



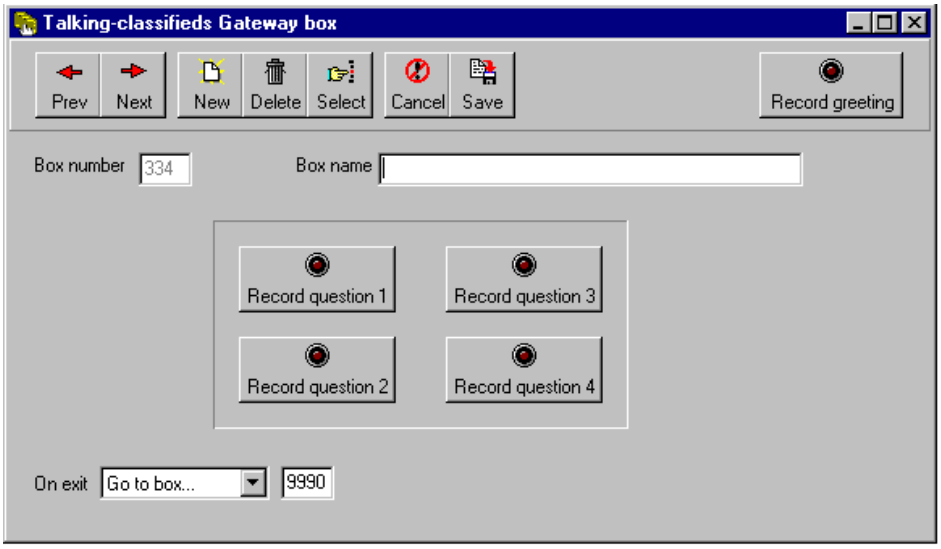
29.4.25 QUESTION BOX SCREEN



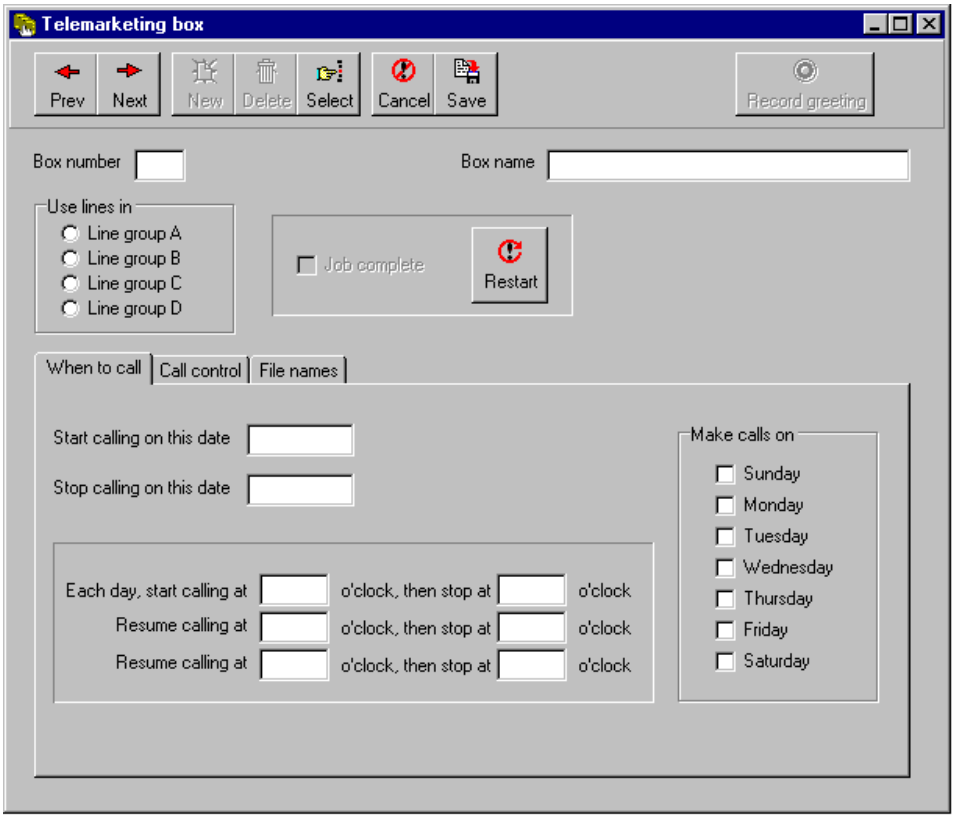
29.4.26 ROUTING BOX SCREEN



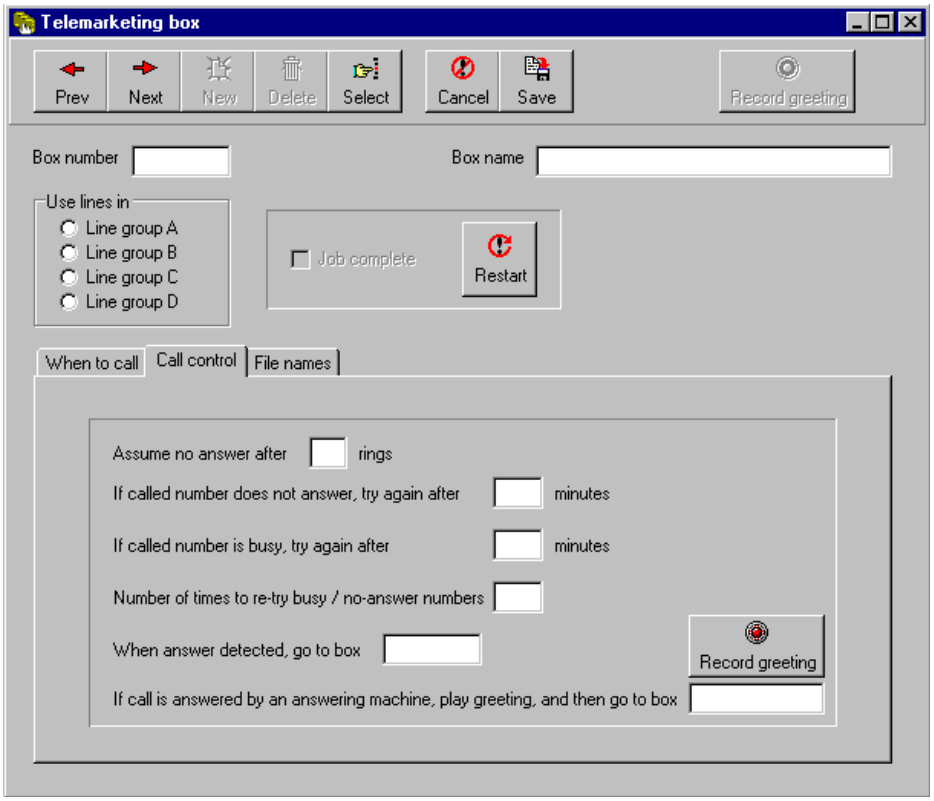
29.4.27 TALKING CLASSIFIEDS GATEWAY BOX SCREEN



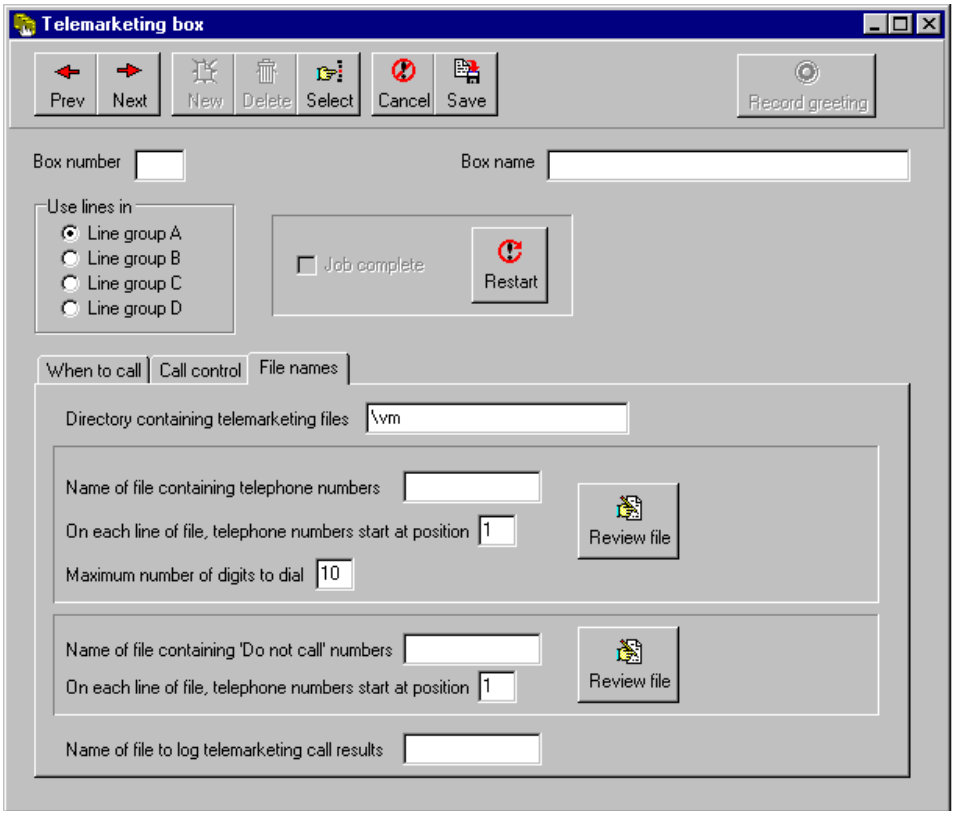
29.4.28 TELEMARKETING BOX SCREEN, WHEN TO CALL TAB



29.4.29 TELEMARKETING BOX SCREEN, CALL CONTROL TAB



29.4.30 TELEMARKETING BOX SCREEN, FILE NAMES TAB



INDEX

—Numerics—

24 Hour Clock Display
configuration file options, 12-4
800
default Routing box 800, 1-4
801
default Routing box 801, 1-4
821
default Routing box 821, 1-4
9994
prototype mailbox 9994, default values, 1-5

—A—

A Record Matches if
IVR Box screen, 27-8
Access to Group Boxes
Class of Service screen, 4-36
default value, 1-5
Access to P.A.
Class of Service screen, 4-37
Access to PA
default value, 1-5
accessing
box information screens, 5-2
box setup, 5-1
Call History screen, 28-12
Database Administrator application from a networked PC, 2-24
database in Line Status screens, 6-44
DOS-based VP System menu options, 1-16
Fax Box screen, 25-1
Fax Restriction screen, 25-11
Fax Setup screen, 25-5
Gateway Box screen, 28-5
IVR Box screen, 27-2
Listing Box remotely, 28-10
Listing Box screen, 28-7
NT-based VP System menu options, 1-18
prototype mailbox, 5-5
system information screens, 4-2
Telemarketing Box, 22-1
Account Box screen
picture, 29-27
Account Is Box
configuration file options, 12-4
Account Number
Mailbox screen, 5-41
User Name, 5-43
Account Number Box
And Then X, 5-89
Box, 5-89
Box Name, 5-87
Box Number, 5-86
Greeting Recorded, 5-87
If Account Number Already Collected area, 5-88
If Acct Number Already Collected For This Call, 5-88
If Invalid Account Number Entered, Allow X More Attempts, 5-88
If Valid Account Number Entered, 5-89
Maximum Number of Digits Allowed, 5-87
Maximum Number of Digits in Account Number, 5-87
Minimum Number of Digits in Account Number, 5-87
Minimum Number of Digits Required, 5-87
Number of Seconds to Wait for a Digit, 5-88
Owner, 5-87
Play Back the Number for Confirmation, 5-88
Repeat Account Number for Verification, 5-88
setting up, 5-85
understanding, 5-85
Account Number Box screen
picture, 29-7
account numbers
collecting, 6-101
collecting as DTMF, 6-101
collecting form the serial link, 6-102
using, 6-101
using in system operations, 6-102
Account Type
Mailbox screen, 5-41, 5-42
Accucall
using Accucall for Rhetorex boards, 13-1
using Accucall for Rhetorex boards in Windows-based systems, 13-18
ACD Box
(Unlabeled Box field), 5-80, 5-82
After Options Have Been Offered X Times, RequireÖ, 5-81
Agent Wrap-up Time, 5-83
Automatically Make Agent Available, 5-83
Box, 5-80, 5-82
Box Name, 5-77
Box Name Recorded, 5-77
Box Number, 5-76
Day Operator Box, 5-78
Do Not Offer Other Options Until After Announcements, 5-81
Enable Multi-Group Overflow Options, 5-84
Extn, 5-78

If All Extns Busy, 5-80
If All Lines Are In Use, 5-82
If Caller Does Not Want to Remain in Queue, 5-82
If No Answer, Automatically Make Agent Unavailable, 5-83
If There Are No Extensions Active, 5-82
List of Extensions, 5-78
Night Operator Box, 5-78
Offer Options After, 5-81
Offer Other Options After X Announcements, 5-81
Operator Box (Day), 5-78
Operator Box (Night), 5-78
Owner, 5-77
Queue Announcement x Recorded, 5-82
Record Announcement buttons, 5-82
Rings to Answer, 5-79
Say Position in Line, 5-81
setting up, 5-72
Start Hunting From, 5-79
Transfer if Answered within X, 5-79
Transfer without Ringing Agent Extension, 5-84
understanding, 5-72
When Trying an Extension, 5-79
ACD Box screen
picture, 29-7
ACD Box screen, Enhanced tab
picture, 29-29
ACD Box screen, General tab
picture, 29-27
ACD Box screen, Queuing Options tab
picture, 29-28
ACD Box screen, Recorded Announcements tab
picture, 29-28
ACD Boxes
administrating, 10-16
ACD group
logging in and out, 6-22
setting up, 6-19
understanding, 6-20
ACD Pause
configuration file options, 12-4
Activate Pager During These Times
Mailbox screen, 5-29
activating
message waiting lamp refresh in Line Status screens, 6-44
modules, 24-1
optional modules, 2-9
serial port integration, 2-9
special features, 2-9
activation codes
entering, 2-9
activity
viewing activity on each line in Line Status screens, 6-46
Add Line Feed
configuration file options, 12-4
adding
mailbox remotely, 6-58
Question Box remotely, 6-60
Routing Box, 6-59
adjusting
PC clock in Line Status screens, 6-45
system info, box setups, and VM.CFG data, 11-4
system Settings for third-party fax server, 24-15
administrating
ACD Boxes, 10-16
Administrator level password, logging into the VP System, 2-12
Administrator Password
General Information screen, 4-6
After Answering Questions
Question Box, 5-50
After Leaving Message
Mailbox screen, 5-32
After Options Have Been Offered X Times, RequireÖ
ACD Box, 5-81
After Playing Greeting
Mailbox screen, 5-30
Page Immediately, 5-30
Record Immediately, 5-30
Record then Page, 5-31
Wait for a Digit, 5-30
After Questions
Question Box, 5-50
Agent Wrap-up Time
ACD Box, 5-83
Allow * to Play All Names in Directory
Directory Box, 5-72
Allow Callers to Allocate Mailboxes Automatically
Auto Allocation screen, 28-15
Allow Complete Directory Listing
Directory Box, 5-72
Allowed to Receive FaxMail
default value, 1-5
Allowed to Receive Faxmail
Class of Service screen, 4-37
Allowed to Use Follow-Me
Class of Service screen, 4-37
And then
IVR Box screen, 27-9
And then Search for X More Matching Records
IVR Box screen, 27-9
And Then X
Account Number Box, 5-89
Announce Extension Number Before Transferring the Call
Directory Box, 5-72
announce mailbox number

Dial-by-Name directory configuration options, 6-80
announcements
including time and date announcements, 6-88
playing to queued calls, 6-21
announcing
call over P.A. system, 6-38
ANS Machine Parms
configuration file options, 12-4
Answer ACK
configuration file options, 12-4
Answer Type
Question Box, 5-51
Answering Machine area
Telemarketing Box screen, 22-6
Answering Machine Greeting
Telemarketing Box screen, 22-6
answering machines
detecting, 22-7
answers
notes on Question Box answers, 16-3
answers, listening to for Question Boxes, 10-17
appending the call back number
digital pagers, 6-30
application
collecting necessary information, 2-16
applications
Database Administrator, 1-8
Message Status Viewer, 1-9
Online Help, 1-11
PBX Setup, 1-12
understanding, 1-7
Voice Mail Viewer, 1-10
archiving
Question Box data, 6-94
Assume Hold
configuration file options, 12-5
Assume No Answer After X Rings
Telemarketing Box screen, 22-5
Assume no-answer after X rings
Mailbox screen, 5-23
Assume Page Confirm
configuration file options, 12-5
At Intervals of X Minutes
Fax Setup screen, 25-10
Mailbox screen, 5-29
attendant, live versus automated, 1-1
audio coupler, making local connections to the board, 2-6
Audit Database
configuration file options, 12-5
Audit Message Count
configuration file options, 12-5
authorization key
equipment requirements, 2-2
Auto Allocation screen
Allow Callers to Allocate Mailboxes Automatically, 28-15
Automatically De-Allocate Mailbox After X Days, 28-16
Delete Any Existing Messages When Allocating Box, 28-16
Delete Existing Messages When Allocating Mailbox, 28-16
Digits to Use to Automatically Allocate a Mailbox, 28-15
General ìHelp, 28-15
If Unable to Allocate a Mailbox, Go to Box, 28-16
Re- Start Counter Each Time Mailbox is Opened, 28-16
Restart Timer Each Time Mailbox is Opened, 28-16
Auto Create Mailboxes
configuration file options, 12-6
Auto Delete New Messages After
default value, 1-4
Auto Delete Old Messages After
default value, 1-4
Auto Exit Disconnect
configuration file options, 12-6
Auto Forward Priority
configuration file options, 12-6
Auto Start
configuration file options, 12-6
AUTOEXEC.BAT
copying AUTOEXEC.BAT and CONFIG.SYS files, 14-1
restoring AUTOEXEC.BAT and CONFIG.SYS files, 14-3
automated attendant
overview, 1-1
Automatic Document Retrieval
FaxMail module, 26-4
automatic logon
specifying rules for automatic logon, 6-78
Automatic Mailbox Allocation screen
picture, 29-1, 29-15
automatic maintenance schedule
modifying on DOS-based VP systems, 21-6
automatic transfer bypass, using, 6-13
Automatically De-Allocate Mailbox After X Days
Auto Allocation screen, 28-16
Automatically Delete New Messages After X Days
Class of Service screen, 4-36
Automatically Delete Old Messages from System After X Days
Class of Service screen, 4-36
Automatically Exit to DOS at
General Information screen, 4-9

Automatically Forward NEW Messages to Box X After X Hours
Mailbox screen, 5-33
Automatically Make Agent Available
ACD Box, 5-83
Automatically Move/Copy Messages to Box/SMTP Address X After X Hours
Mailbox screen, 5-33
Automatically Update All MWI Lamps
General Information screen, 4-8
Automatically Update All MWI Lamps at
Technical Information screen, 4-31

—B—

backups
automating on DOS-based VP systems, 14-3
automating on Windows-based VP systems, 14-5
backing up DOS-based systems to diskette, 14-1
making, 14-1
Bail-out Digits
IVR Box screen, 27-5
Question Box, 5-50
Basic CPTones
configuration file options, 12-6
beginning
VP System, 2-12
Blind
Transfer Type, 5-21, 6-6
using TRANS.TXT and reason codes to play specific greetings, 6-76
Box
Fax Box screen, 25-4
Gateway Box screen, 28-7
IVR Box screen, 27-5
box
accessing box information screens, 5-2
Account Number Box, 5-85, 5-89
ACD Box, 5-72, 5-80, 5-82
adjusting system info, box setups, and VM.CFG data, 11-4
creating a range of multiple boxes, 5-3
creating each type, 5-1
Demo Mailbox 9993, 5-44
Directory Box, 5-67, 5-71
Group Box, 5-64
Mailbox screen, 5-12, 5-31
Question Box, 5-44, 5-51
resetting, 5-44
Routing Box, 5-53, 5-59
setting up a mailobox, 5-4
understanding, 5-1
understanding prototype mailbox, 5-5
understanding reserved boxes, 5-3
viewing current setup, 5-1
box 800
default Routing box 800, 1-4
box 801
default Routing box 801, 1-4
box 821
default Routing box 821, 1-4
Box Name
Account Number Box, 5-87
ACD Box, 5-77
Directory Box, 5-69
Fax Box screen, 25-3
Gateway Box screen, 28-6
IVR Box screen, 27-4
Question Box, 5-48
Routing Box, 5-57
Telemarketing Box screen, 22-3
Box Name Recorded
ACD Box, 5-77
Box Number
Account Number Box, 5-86
ACD Box, 5-76
Directory Box, 5-69
Fax Box screen, 25-2
Gateway Box screen, 28-6
Group Box, 5-66
IVR Box screen, 27-4
Listing Box screen, 28-8
Mailbox screen, 5-13
Question Box, 5-48
Routing Box, 5-57
Telemarketing Box screen, 22-3
box setups
adjusting system info, box setups, and VM.CFG data, 11-4
box types
overview, 1-2
broadcast messages
sending, 6-61
broadcasting
setting up fax broadcasting, 25-17
Brooktrout service, 1-13
Brooktroutdelay
configuration file options, 12-7
Business Hours screen, 4-19
Change Good Afternoon to Good Evening at, 4-20
Day Service Begins, 4-20
Day Service Ends, 4-20
picture, 4-19, 29-1, 29-16
Busy
during call transfer, 6-10
using different greetings for busy and no answer, 6-15
bypass

automatic transfer bypass, 6-13
choosing transfer bypass digit, 6-14
manual transfer bypass, 6-12
using transfer bypass feature, 6-12

—C—

C.O. line digits considerations
reason codes, 6-73
C.O. line identifier digits
integrating with PBXís, 17-3
Call
Mailbox screen, 5-34
call
placing in the queue, 6-21
placing outgoing calls, 6-89
recording calls, 6-103
selecting language at beginning of call, 6-63
selecting language during call, 6-64
specifying rules for recording calls, 6-77
storing calling partyís number, 6-69
using database lookups to route calls, 6-82
Call Control
installing client software, 23-47
permitting subscriber access, 23-49
setting up subscriber workstations, 23-47
subscriber information on, 23-50
using, 23-47
call counts
resetting call counts Line Status screens, 6-44
call forwarding
using voice mail integration with In-Band Signaling, 6-19
Call History screen
accessing, 28-12
completing, 28-12, 28-13
call logging files, 24-16
call logs
specifying formats, 6-2
understanding, 6-1
using, 6-1
Call on (Day)
Telemarketing Box screen, 22-4
call progress
detecting tones, 13-1
using Accucall for Rhetorex boards, 13-1
using Accucall for Rhetorex boards in Windows-based systems, 13-18
call progress tone detection
digital pagers, 6-30
integrating, 17-4
call progress tones
detecting, 6-12
call queuing
setting up, 6-40
Call Schedule
Mailbox screen, 5-29
Call Sequence Number
Route Call Based On, 5-60
Call the Pager X times
Mailbox screen, 5-28
call transfer
call transfer process begins, 6-9
call transfer results, 6-6
called party is busy, 6-10
called party rings, 6-10
called party rings and answers, 6-11
Follow-Me feature, 6-17
performing, 6-5
specifying call transfer types, 6-8
transfer types, 6-6
troubleshooting, 6-17
Call Transfer screen, 4-23
Detect Call-Progress Tones, 4-28
Detect Dial Tone, 4-26
Digits that Mean YES When Asking for Confirmation, 4-29
Groups, 4-23
Max Time for Three-Way Call, 4-29
picture, 4-23, 29-2
Sequence to Complete a Transfer (Internal / External), 4-25
Sequence to Initiate a Transfer (Internal / External), 4-24
Sequence to Return from Busy (Internal / External), 4-26
Sequence to Return from Call Screening (Internal / External), 4-26
Sequence to Return from No-Answer (Internal / External), 4-26
Sequence to Transfer a Three-Way Call (Internal / External), 4-25
Use Transfer Bypass Digit, 4-28
Call Transfer Service
changing for mailbox, 10-14
Callback Retrieval
FaxMail module, 26-4
Callers Can Page via PA System
Class of Service screen, 4-37
calling
placing an outgoing call, 10-18
using three way calling, 6-16
Category for Question 1, 2, 3, 4
Listing Box screen, 28-10
CD Speed
configuration file options, 12-7
central office
connecting to VP System, 2-3
Change Good Afternoon to Good Evening at

Business Hours screen, 4-20
changing
Call Transfer Service for mailbox, 10-14
display mode in Line Status screens, 6-43
languages, 10-17
mailbox options, 10-11
mailbox remotely, 6-58
Message Notification Service for mailbox, 10-15
Pager Service for mailbox, 10-15
password for mailbox, 10-13
personal distribution list for mailbox, 10-16
Question Box remotely, 6-60
Routing Box remotely, 6-59
VM.CFG file for multilingual systems, 6-66
Check Box Alias
configuration file options, 12-7
choosing
transfer bypass digit, 6-14
Class of Service
Access to Group Boxes, 1-5
Access to PA, 1-5
Allowed to Receive FaxMail, 1-5
Auto Delete New Messages After, 1-4
Auto Delete Old Messages After, 1-4
default values, 1-4, 1-5
Dial-Out Allowed, 1-5
Mailbox screen, 5-17
Max Lines to Hold, 1-5
Maximum Greeting Length, 1-4
Maximum Message Length, 1-4
Maximum Number of Greetings, 1-4
Maximum Number of Messages, 1-4
Operator Box (day), 1-5
Play Menu After Greeting, 1-5
Restricted Digits, 1-5
Supervisor Status, 1-4
Try Extension, 1-5
When Exiting Mailbox, 1-5
While In Queue, 1-5
Class of Service Name
Class of Service screen, 4-35
Class of Service Number
Class of Service screen, 4-35
Class of Service report, 6-53
Class of Service screen, 4-32
Access to Group Boxes, 4-36
Access to P.A., 4-37
Allowed to Receive Faxmail, 4-37
Allowed to Use Follow-Me, 4-37
Automatically Delete New Messages After X Days, 4-36
Automatically Delete Old Messages from System After X Days, 4-36
Callers Can Page via PA System, 4-37
Class of Service Name, 4-35
Class of Service Number, 4-35
Dial-Out Allowed, 4-37
Digits Allowed While Holding, 4-38
Digits Caller Can Dial While Holding, 4-38
Max Lines Allowed To Hold For One Box, 4-38
Maximum Greeting Length, 4-35
Maximum Message Length, 4-36
Maximum Number of Greetings, 4-35
Maximum Number of Lines Allowed to Hold for this Mailbox, 4-38
Maximum Number of Messages, 4-35
Operator Box (Day) (Night), 4-38
picture, 4-33, 29-2, 29-16
Play Menu After Greeting, 4-37
Play System Menu after Personal Greeting, 4-37
Restricted Numbers, 4-39
Supervisor Status, 4-36
Try Extension X Times Before Going Back to Caller, 4-39
When Exiting Open Mailbox, Go To Box, 4-38
While in Queue Announce Position in Line, 4-38
While In Queue, Say Position In Line, 4-38
Class of Service screen, Call Holding Tab screen
picture, 29-17
Class of Service screen, Call Restrictions Tab screen
picture, 29-18
Class of Service screen, Greetings Tab screen
picture, 29-17
Classifieds (Talking) module
setting up, 28-1
using, 28-1
Classifieds Gateway screen
picture, 29-3
Clear Down Delay
configuration file options, 12-8
client PC
Dual Message Store unified messaging and e-mail reader requirements, 23-27
clock
adjusting for PC in Line Status screens, 6-45
codes
entering activation, 2-9
entering LOGINS.TXT, 2-11
entering NUMLINES.TXT, 2-11
entering PBXLINK.TXT, 2-11
entering Renew code, 2-10
entering SWITCHES.TXT, 2-11
collecting necessary information, 2-16
colon character
using special characters in database lookups files, 6-85
Color.X.Y
configuration file options, 12-8
COM port

connecting seral cable between VP System and PBX, 2-5
companion listing boxes
setting up companion listing boxes for automatic allocation mailboxes, 28-17
Company Name
General Information screen, 4-6
complete directory listing
Dial-by-Name directory configuration options, 6-80
Completed
Telemarketing Box screen, 22-3
completing
Call History screen, 28-12, 28-13
CONFIG.SYS
copying AUTOEXEC.BAT and CONFIG.SYS files, 14-1
restoring AUTOEXEC.BAT and CONFIG.SYS files, 14-3
configuration
configuration file options, 12-1
configuration file
modifying for a fax switch, 6-99
modifying VM.CFG file, 6-66
configuration file options, 12-1
24 Hour Clock Display, 12-4
Account Is Box, 12-4
ACD Pause, 12-4
Add Line Feed, 12-4
ANS Machine Parms, 12-4
Answer ACK, 12-4
Assume Hold, 12-5
Assume Page Confirm, 12-5
Audit Database, 12-5
Audit Message Count, 12-5
Auto Create Mailboxes, 12-6
Auto Exit Disconnect, 12-6
Auto Forward Priority, 12-6
Auto Start, 12-6
Basic CPTones, 12-6
Brooktroutdelay, 12-7
CD Speed, 12-7
Check Box Alias, 12-7
Clear Down Delay, 12-8
Color.X.Y, 12-8
CP.x, 12-9
Custom, 12-9
Database Line, 12-10
Database Timeout, 12-10
Date Format, 12-10
Delete After FWD, 12-10
Delete Queue Burst Size, 12-11
Delete Queue Frequency, 12-10
Detect Pulse, 12-11
Dial, 12-11
Dialtone Frequency, 12-12
Dialtone On, 12-12
Directory IDP, 12-12
Disable Tutorial, 12-12
DTMF On, 12-13
DTMF Send Off, 12-13
DTMF Send On, 12-13
Export Path, 12-13
External Long Hookflash, 12-13
External Message Path, 12-13
Extra Fax Retry, 12-14
Fast ACD Transfer, 12-14
Fast Notification, 12-14
FASTFAX, 12-14
Fax General Delivery, 12-15
Fax Link, 12-15
Fax Order Path, 12-15
Fax Pause, 12-15
Fax Prefix, 12-16
Fax Reserved Ring Wait, 12-16
Fax Timeout, 12-16
Fax Trace File, 12-16
FF Digit, 12-16
Fixed Language, 12-17
Flow Control, 12-17
Get async DTMF, 12-17
Greet Sil, 12-18
Greeting.Night, 12-18
Greeting.x, 12-18
Group Box Distribution Priority, 12-19
Hardware Int, 12-19
Host, 12-20
Ignore Disconnects, 12-20
Ignore DTMF, 12-21
Ignore Initial Disconnect, 12-21
Ignore Nonsilence, 12-21
Initial Pause IDP, 12-22
Inter Digit, 12-22
Internal, 12-22
IVR Prompt Language, 12-22
IVR Voice File Path, 12-22
Keep Messages New, 12-23
Languages, 12-23
LH TTS Voice ID, 12-23
Lines Connected, 12-23
Link Format, 12-23
Local Spkr, 12-24
Long Hook Flash, 12-24
Lunch Operator Is Day, 12-24
Max Inactive, 12-24
Max Lockup, 12-24
Max Password Length, 12-25
Max TTS Streams, 12-25

Mbox Default Digit, 12-25
Menu, 12-25
Message Handshake, 12-26
Message Pause Time, 12-26
Minimum Message, 12-26
Monitor, 12-26
MW Off Reps, 12-26
MW On Reps, 12-27
MW Priority, 12-27
MW Q Size, 12-27
No Account in Log, 12-27
No Name Transfers, 12-27
No PC Beep, 12-28
No Record Beep, 12-28
No Serial MW Refresh, 12-28
No Video Memory, 12-28
Notify Priority, 12-28
Notify Reps, 12-28
Notify Rings, 12-28
Offhook Delay, 12-29
Omit Group Sender, 12-29
Onhook DTMF, 12-29
Outbound Delay, 12-29
PA.Busy, 12-30
PA.Cancel, 12-30
PA.Int, 12-31
PA.Repeats, 12-31
Pager Append, 12-31
Pager Prefix, 12-31
Pager Retry, 12-31
Pager Time, 12-32
Pager Trail, 12-31
Playback Delay, 12-32
PMS Via Text Files, 12-33
Pooled Ring, 12-33
Pulse Calibration, 12-34
Pulse Speed, 12-34
Qbox Archive, 12-34
Qbox Data Path, 12-34
Qbox Data Print, 12-34
Qbox Data Print Eject, 12-34
Qbox Hide Acct Numbers, 12-35
Qbox Pos Confirm, 12-35
Qbox Use Confirm Numbers, 12-35
Remain Offhook, 12-35
Remote Pause, 12-36
Repeat MW, 12-36
Repose Time, 12-36
Retry Fax Always, 12-36
Rew Digit, 12-37
Ring On, 12-37
Ring Reset, 12-37
Same Call Fax OK, 12-37
Sampling Rate, 12-38
Save Trace, 12-39
Screen Saver, 12-39
Send Disconnect, 12-39
Serial Disconnect Delay, 12-40
Service Observe Code, 12-40
Share Fax Reports, 12-40
SMDI Answer First, 12-40
Special Ans Digit, 12-41
T1 Port, 12-41
TCNAME, 12-41
TDD Auto, 12-41
TDD Digit, 12-41
Tone, 12-41
Trans Bypass, 12-41
Transfer Ring, 12-42
TTS Buffer Size, 12-42
Tutorial Reps, 12-42
UM Name, 12-42
Unitized, 12-42
Use Enterprise, 12-43
Use L&H TTS, 12-43
Use LCD Menus, 12-43
Use Printer, 12-43
VCM Answer Delay, 12-43
VCM Channel Timeout, 12-44
VCM Line Group, 12-44
VCMName, 12-44
Volume, 12-44
Wakeup Rings, 12-44
XFER Name Time, 12-44

configuring
DOS-based PC for VP System, 21-1
GammaLink fax boards, 24-10
Satisfaxion fax boards, 24-6
system for FaxMail module, 26-1
systems using Rhetorex boards, 6-98
using enhanced fax configurations, 24-13
voice boards, 20-1
Windows-based PC for VP System, 21-2

confirming
data entry digits for Question Box, 6-95

connecting
directly to central office, 2-3
making local connections to the board, 2-5
remote PC to the host PC, 9-3
serial cable between VP System and PBX, 2-5
telephone lines to fax boards, 24-2
to key system, 2-3
to PBX, 2-3
using an audio coupler, 2-6
using two telephone lines, 2-5
VP System to telephone system, 2-2

Convert DOS Files, 2-7

converting information from DOS- to Windows-based VP systems, 2-7
copy
files between remote PC and the host PC, 9-6
copying
AUTOEXEC.BAT and CONFIG.SYS files, 14-1
database and setup files, 14-2
greetings, names, and messages, 14-2
pre-recorded modifies prompts, 25-19
pre-recorded prompts in FaxMail module, 26-6
Talking Classifieds pre-recorded prompts, 28-19
using pre-recorded prompt options, 15-24
CP.x
configuration file options, 12-9
creating
boxes, 5-1
fax switch mailbox, 6-99
voice mail addresses, 23-29
Cross-Reference Number
Listing Box screen, 28-9
Currently Enabled
Mailbox screen, 5-24, 5-29, 5-36
Currently Scheduled
Mailbox screen, 5-39
Custom
configuration file options, 12-9
Custom and Debug
Setting Up the Other Customizations screen, 4-43
Custom Flags screen
Diagnostic Menu options, 4-44
picture, 4-45, 29-18
Custom ñ From File
Fax Setup screen, 25-7
Customer level password, logging into the VP System, 2-12
Customer Service Box
Refer to ACD Box entries in Index, 5-72
Customer Service groups
setting up, 6-19

—D—

D.I.D. considerations
understanding, 6-66
D.I.D. line considerations
reason codes, 6-73
D/41 boards, installing, 20-11
D/41D boards, installing, 20-8
D/41H boards, installing, 20-15
D/4PCI boards, installing, 20-18
D160SC-LS boards, installing, 20-20
DATA Directory
file organization, 16-4
data entry
using with Question Boxes, 6-91
database
accessing from Line Status screens, 6-44
copying database and setup files, 14-2
default settings, 1-3
restoring database and setup files, 14-3
Database Access Password
General Information screen, 4-6
Database Administrator application, 1-8
accessing from a networked PC, 2-24
Database Line
configuration file options, 12-10
Database Lookup
Route Call Based On, 5-62
database lookups
colon character, 6-85
exclamation character, 6-84
formatting files, 6-82
pound character, 6-83
semi-colon character, 6-84
setting up, 6-81
using special characters in database lookups files, 6-83
using to route calls, 6-82
wildcard characters, 6-86
Database Timeout
configuration file options, 12-10
Date
Route Call Based On, 5-61
date
including time and date announcements, 6-88
Date Format
configuration file options, 12-10
Day Operator Box
ACD Box, 5-78
Day service
supervisor control, 6-38
switching service modes remotely, 6-62
Day Service Begins
Business Hours screen, 4-20
completing the Business Hours/Holidays worksheet, 2-18
Day Service Ends
Business Hours screen, 4-20
completing the Business Hours/Holidays worksheet, 2-18
Day/Night Service
Route Call Based On, 5-62
Days of Week
Route Call Based On, 5-61
DBA
accessing from a networked PC, 2-24
dedicated phone lines
using enhanced fax configurations, 24-13
default
Access to Group Boxes, 1-5
Access to PA, 1-5

Allowed to Receive FaxMail, 1-5
Auto Delete New Messages After, 1-4
Auto Delete Old Messages After, 1-4
business hours, 1-4
Class of Service, 1-4, 1-5
database, 1-3
default passwords, 1-5
Dial-Out Allowed, 1-5
extension length, 1-5
mailbox 70, 1-5
Max Lines to Hold, 1-5
Maximum Greeting Length, 1-4
Maximum Message Length, 1-4
Maximum Number of Greetings, 1-4
Maximum Number of Messages, 1-4
Operator Box (day), 1-5
password length, 1-5
Play Menu After Greeting, 1-5
prototype mailbox 9994, 1-5
Restricted Digits, 1-5
Routing box 800, 1-4
Routing box 801, 1-4
Routing box 821, 1-4
Supervisor Status, 1-4
Technician password, 1-4
Try Extension, 1-5
When Exiting Mailbox, 1-5
While In Queue, 1-5
Default Account for Outgoing Mail
Mailbox screen, 5-41
Default Password report, 6-55
default passwords
default value, 1-5
Default Path
Telemarketing Box screen, 22-4
defining paths for the VP System files, 4-15
defragmenting
NT-based VP systems, 21-7
systems using Diskeeper, 21-7
systems using DOS 6.0, 21-5
systems using Norton Utilities, 21-5
systems using other utilities, 21-6
Windows-based VP systems, 21-7
Delete After FWD
configuration file options, 12-10
Delete Any Existing Messages When Allocating Box
Auto Allocation screen, 28-16
Delete Existing Messages When Allocating Mailbox
Auto Allocation screen, 28-16
Delete Message
options between messages, 10-8
Delete Queue Burst Size
configuration file options, 12-11
Delete Queue Frequency
configuration file options, 12-10
Delete the Message
options between messages, 10-9
deleting
mailbox remotely, 6-58
Question Box remotely, 6-60
Routing Box, 6-59
delimiter
notes on for IVR, 27-15
Delimiter Between Fields
IVR Box screen, 27-6
Deliver These Messages
Mailbox screen, 5-36
Demo Mailbox 9993, 5-44
Description
Listing Box screen, 28-9
Description Recorded
Listing Box screen, 28-9
Destination for Digit fields
Routing Box, 5-63
Detect Call-Progress Tones
Call Transfer screen, 4-28
Detect Dial Tone
Call Transfer screen, 4-26
Detect Pulse
configuration file options, 12-11
detecting
absence of touch-tones, 17-2
answering machines, 22-7
break in line current, 17-1
call progress tones, 6-12, 13-1, 17-2
disconnect digit sequence, 17-1
hang-up, 17-1
determining the VP systemís current software version, 2-13
Diagnostic Menu options, 4-43
Custome Flags screen, 4-44
Trace Setup screen, 4-44
Dial
configuration file options, 12-11
dial rules
specifying, 6-104
specifying for external, 22-7
understanding, 6-106
using the append rule, 6-105
using the delete rule, 6-105
using the insert rule, 6-104
Dial-by-Name
announce mailbox number, 6-80
complete directory listing, 6-80
directory box 9998 greetings, 6-81
keeping a mailbox out of the Dial-by-Name directory, 6-79
last name/ first name option, 6-80
number of letters to request, 6-80
setting up directory, 6-79
understanding configuration options, 6-80

using directory, 6-79
DIALOG/4 boards, installing, 20-1
Dialogic
using a PBXpert/32 for Dialogic boards, 13-17
using a TRAIN for Dialogic boards, 13-13
Dialogic boards
D/41D boards, 20-8
D/41E boards, 20-11
D/41H boards, 20-15
D/4PCI boards, 20-18
D160SC-LS boards, 20-20
DIALOG/4 boards, 20-1
Dialogic boards, installing, 20-1
Dialogic service, 1-13
Dial-Out Allowed
Class of Service screen, 4-37
default value, 1-5
Dialtone Frequency
configuration file options, 12-12
Dialtone On
configuration file options, 12-12
differences between products, 1-6
digit
choosing transfer bypass digit, 6-14
digit translation
specifying digit translation based on port number, 6-77
specifying digit translation based on time of day, 6-77
digit translation file
setting up, 6-66
understanding, 6-67
digital pagers
additional parameters, 6-30
appending the call back number, 6-30
call progress tone detection, 6-30
prefixing the call back number, 6-30
programming for message delivery, 6-31
programming in Page Number section, 6-28
setting up, 6-27
Digits
Fax Restriction screen, 25-12
Digits Allowed While Holding
Class of Service screen, 4-38
Digits Caller Can Dial While Holding
Class of Service screen, 4-38
Digits Dialed
Route Call Based On, 5-60
Digits that Mean YES in Response to a Yes/No Question
General Information screen, 4-8
Digits that Mean YES When Asking for Confirmation
Call Transfer screen, 4-29
Digits to Get a Line on External Call
General Information screen, 4-12
PBX Information screen, 4-27
Digits to Strip From Callback Number
Fax Setup screen, 25-10
Digits to Use to Automatically Allocate a Mailbox
Auto Allocation screen, 28-15
Directory Box
(Unlabeled Box field), 5-71
Allow * to Play All Names in Directory, 5-72
Allow Complete Directory Listing, 5-72
Announce Extension Number Before Transferring the Call, 5-72
Box, 5-71
Box Name, 5-69
Box Number, 5-69
Greeting Recorded, 5-69
If Name Not Found, 5-71
If No Digits Dialed, 5-70
Max Number of Digits to Collect, 5-70
Maximum Number of Digits to Accept, 5-70
Number of Times to Play Greeting, 5-70
Say Box Number Before Transferring, 5-72
setting up, 5-67
understanding, 5-67
directory box 9998 greetings
Dial-by-Name directory configuration options, 6-81
Directory Box screen
picture, 29-8, 29-29
Directory Containing Telemarketing Files
Telemarketing Box screen, 22-4
Directory for Fax Distribution Documents
Fax Setup screen, 25-10
Directory IDP
configuration file options, 12-12
Disable Tutorial
configuration file options, 12-12
disabling
recording tone, 6-77
Disconnect Digit Sequence
PBX Information screen, 4-27
Technical Information screen, 4-30
Disconnect if More than X Seconds of Continuous Sound Detected
General Information screen, 4-11
disconnecting
a port from Line Status screens, 6-43
a port in the Voice Mail Viewer application, 6-47
disk maintenance utilities
using on DOS-based VP systems, 21-5
using on Windows-based VP systems, 21-7
Diskeeper
defragmenting systems using, 21-7
diskette
backing up DOS-based systems to diskette, 14-1
diskette drive
equipment requirements, 2-1

Display Mail-Box Passwords on Screen
General Information screen, 4-9
Setting Up the Other Customizations screen, 4-42
Display Mailbox Passwords on Screen
General Information screen, 4-7
display mode
changing in Line Status screens, 6-43
displaying
line activity in Line Status screens, 6-44
software versions in Line Status screens, 6-45
distribution list, 10-16
distribution lists, 5-39
Mailbox screen setup, 5-39
setting up using a Group Box, 5-64
Do Not Follow Me
Mailbox screen, 5-25
Do Not Offer Other Options Until After Announcements
ACD Box, 5-81
document
retrieving a FaxMail document, 26-3
sending a FaxMail document, 26-1
sending a FaxMail document from an open mailbox, 26-5
Document File-Name
Fax Box screen, 25-3
Document is Password Protected Password
Fax Box screen, 25-4
Document Name Recorded
Fax Box screen, 25-3
Document Security Code
Fax Box screen, 25-4
Document Type
Fax Box screen, 25-3
DOS
accessing VP System menu options, 1-16
defragmenting systems using, 21-5
DOS-based VP System Box Setup screens, 29-7
DOS-based VP System screens, 29-1
exiting to from Line Status screens, 6-43
product differences, 1-6
requirements for DOS-based VP Systems, 21-1
DOS-based VP System
configuring the PC for, 21-1
upgrading to latest available software, 2-15
DTMF On
configuration file options, 12-13
DTMF Send Off
configuration file options, 12-13
DTMF Send On
configuration file options, 12-13
Dual Message Store
Mailbox screen, 5-17
Dual Message Store unified messaging
implementing on the LAN, 23-15
During X
Mailbox screen, 5-33, 5-36
DVM Database Files
file organization, 16-6

—E—

Edit button on Follow-Me tab
Mailbox screen, 5-26
editing
configuration file for a fax switch, 6-99
E-mail Address
Mailbox screen, 5-41
e-mail reader
installing on a client PC, 23-27
setting up on the VP system PC, 23-22
understanding, 23-18
understanding functionality on the LAN, 23-17
Email Reader enhancements, 23-32
e-mail requirements
Dual Message Store unified messaging, 23-15, 23-37
E-mail Subject
Mailbox screen, 5-34, 5-37
E-mail tab
Mailbox screen, 5-39
Enable Enhanced Customer Service Reports
General Information screen, 4-15
Enable Multi-Group Overflow Options
ACD Box, 5-84
Enabled
distribution lists, 5-39
Mailbox screen, 5-29, 5-39
End
Mailbox screen, 5-38
End Date
Telemarketing Box screen, 22-3
Enhanced Customer Service
setting up, 6-20
Enhanced Customer Service Reports, 6-20
Enhanced Customer Service reports, 5-78
entering
activation codes, 2-9, 2-11
box information, 5-1
LOGINS.TXT code, 2-11
NUMLINES.TXT code, 2-11
PBXLINK.TXT code, 2-11
Renew code, 2-10, 24-1
SWITCHES.TXT, 24-1
equipment
authorization key, 2-2
KeyLink communications software, 2-2
laptop computer, 2-2
null modem serial cable, 2-2
portable diskette drive, 2-1
requirements, 2-1
VP System Unit, 2-1

error log
viewing in the Voice Mail Viewer application, 6-48
error messages, 18-1
exclamation character
using special characters in database lookups files, 6-84
Exclude
Telemarketing Box screen, 22-5
existing
modifying existing prompts, 25-19
modifying Talking Classifieds existing prompts, 28-19
Exit Digits
Question Box, 5-50
exit to DOS, 8-4
exiting
mailbox, 10-18
to DOS from Line Status screens, 6-43
VP System, 2-12
Export Path
configuration file options, 12-13
extension length
default value, 1-5
extension numbers
using wildcard characters to translate, 6-69
external dial rules
specifying, 22-7
External Long Hookflash
configuration file options, 12-13
External Message Path
configuration file options, 12-13
Extn
ACD Box, 5-78
Extra Fax Retry
configuration file options, 12-14

—F—

Fast ACD Transfer
configuration file options, 12-14
Fast Notification
configuration file options, 12-14
FASTFAX
configuration file options, 12-14
Fast-Forward/Rewind Should Jump by X Seconds
General Information screen, 4-11
fax
logging fax calls, 25-17
retrieving from the VP System, 25-15
reviewing the Fax Log file, 25-18
sending a fax into a Fax Box from paper, 25-14
sending a fax into a Fax Box using the Fax from the Desktop feature, 25-13
sending into a Fax Box, 25-12
setting up fax broadcasting, 25-17
setting up system settings for fax, 25-5
using Fax Distribution prompts, 25-18
using third party application to send faxes, 24-14
Fax 1 is Connected to Line
Fax Setup screen, 25-9
Fax 16 is Connected to Line
Fax Setup screen, 25-9
fax boards
adjusting system Settings for third-party fax server, 24-15
adjusting the configuration file, 24-16
call logging files, 24-16
configuring GammaLink fax boards, 24-10
configuring Satisfaxion fax boards, 24-6
connecting telephone lines to fax boards, 24-2
installing GammaLink fax boards, 24-8
installing GammaLink software, 24-10
installing Satisfaxion fax boards, 24-5
installing Satisfaxion software, 24-6
installing the hardware, 24-15
programming the Fax Box, 24-15
sharing fax ports, 24-12
understanding the Fax Order file, 24-15
using enhanced fax configurations, 24-13
using third party application to send faxes, 24-14
Fax Box
(Unlabeled Box field), 25-4
accessing the Fax Box screen, 25-1, 25-2
Box, 25-4
Box Name, 25-3
Box Number, 25-2
Document File-Name, 25-3
Document is Password Protected Password, 25-4
Document Name Recorded, 25-3
Document Security Code, 25-4
Document Type, 25-3
If Caller Can Order More Documents, 25-4
If Maximum Number of Documents Ordered, 25-4
Owner, 25-3
Owner Box, 25-3
programming, 24-15
sending a fax into, 25-12
setting up, 25-1
When Exiting Box, If Caller Has Ordered Max Number of Docs, 25-4
When Exiting Box, If Caller May Order More Documents, 25-4
Fax Box screen
picture, 29-8, 29-30
fax broadcasting
setting up, 25-17
fax calls

logging fax calls, 25-17
Fax Cover-Page
Fax Setup screen, 25-6
FAX Directory
file organization, 16-5
Fax Distribution
using prompts, 25-18
fax distribution module
accessing the Fax Box screen, 25-1
setting up a Fax Box, 25-1
using, 25-1
fax distribution restrictions
setting up, 25-11
Fax Distribution Restrictions screen
picture, 29-4
fax from the desktop
sending a fax into a Fax Box, 25-13
Fax General Delivery
configuration file options, 12-15
Fax Link
configuration file options, 12-15
Fax Log file
reviewing, 25-18
fax module
installing hardware /software required for fax modules, 24-2
Fax Order file
understanding, 24-15
Fax Order Path
configuration file options, 12-15
Fax Pause
configuration file options, 12-15
Fax Port 1 is Connected to Voice Port
Fax Setup screen, 25-9
Fax Port 16 is Connected to Voice Port
Fax Setup screen, 25-9
fax ports
sharing, 24-12
Fax Prefix
configuration file options, 12-16
Fax Reserved Ring Wait
configuration file options, 12-16
Fax Restriction screen
accessing, 25-11
Digits, 25-12
Restriction Type, 25-11
fax server
adjusting system Settings for third-party fax server, 24-15
Fax Setup
accessing, 25-5
At Intervals of X Minutes, 25-10
Custom ñ From File, 25-7
Digits to Strip From Callback Number, 25-10
Directory for Fax Distribution Documents, 25-10
Fax 1 is Connected to Line, 25-9
Fax 16 is Connected to Line, 25-9
Fax Cover-Page, 25-6
Filename for Cover-Page Logo, 25-7
How to Transmit Faxes, 25-8
If Call Fails, Try X More Times, 25-10
Insert a ë1í for Long-Distance, 25-10
Max Faxes We Will Send Per Call, 25-8
Maximum Number of Documents to Send per Call, 25-8
Path for Fax Distribution Documents, 25-10
Path for Fax-Mail Documents, 25-11
Prefix a Digit-1 For Long-Distance, 25-10
Resolution area, 25-9
Send options area, 25-8
Sending Resolution, 25-9
Fax Setup screen
picture, 29-3
Fax Setup screen, Miscellaneous Tab screen
picture, 29-19
Fax Setup screen, Restricted Numbers Tab screen
picture, 29-21
Fax Setup screen, Wiring Tab screen
picture, 29-20
fax switch
creating a fax switch mailbox, 6-99
using VP System for, 6-97
Fax Timeout
configuration file options, 12-16
Fax Trace File
configuration file options, 12-16
FAXMAIL Directory
file organization, 16-5
FaxMail module
Automatic Document Retrieval, 26-4
Callback Retrieval, 26-4
configuring system for, 26-1
copying pre-recorded prompts, 26-6
modifying prompts, 26-6
retrieving a document, 26-3
Same Call Retrieval, 26-3
sending a document, 26-1
sending a document from an open mailbox, 26-5
using, 26-1
using new and modified prompts, 26-5
FF Digit
configuration file options, 12-16
Field Types
IVR Box screen, 27-6
Field X is
IVR Box screen, 27-6
figures
program screens, 29-1
file formats
horizontal file format, 6-94
selecting for a Question Box, 6-93

vertical file format, 6-93
file organization
DATA Directory, 16-4
DVM Database Files, 16-6
FAX Directory, 16-5
FAXMAIL Directory, 16-5
L2 - L9 Directories, 16-1
LOG Directory, 16-4
M Directory, 16-1
notes on Question Box answers, 16-3
P Directory, 16-1
T Directory, 16-4
understanding, 16-1
VM Directory, 16-5
Filename
IVR Box screen, 27-6
Filename for Cover-Page Logo
Fax Setup screen, 25-7
First in, first out (FIFO)
Mailbox screen, 5-32
First Name
Mailbox screen, 5-13
first name
Dial-by-Name directory configuration options, 6-80
first time setup, running the PBX Setup utlity, 3-1
Fixed Language
configuration file options, 12-17
Flow Control
configuration file options, 12-17
Follow-Me
setting up, 6-108
Follow-Me Automatically
Mailbox screen, 5-26
Follow-Me feature
call transfer, 6-17
Follow-Me When Caller Requests to
Mailbox screen, 5-26
formatting
database lookups files, 6-82
Forward the Message
options between messages, 10-8
Friendly Area
Mailbox screen, 5-41
Future Delivery
reviewing messages scheduled for, 10-15

—G—

GammaLink fax boards
configuring, 24-10
installing, 24-8
GammaLink service, 1-13
GammaLink software
installing, 24-10
Gateway Box
(Unlabeled Box field), 28-7
accessing, 28-5
Box, 28-7
Box Name, 28-6
Box Number, 28-6
Gateway Name, 28-6
Greeting Recorded, 28-6
On Exit, 28-7
On Exit from Talking Classifieds Area, 28-7
Question 1, 2, 3, 4 Recorded, 28-6
setting up, 28-4
understanding, 28-4
Gateway Name
Gateway Box screen, 28-6
General Call Log file
using, 25-17
General iHelp, 28-15
General Information screen, 4-3
Adminstrator Password, 4-6
Automatically Exit to DOS at, 4-9
Automatically Update All MWI Lamps, 4-8
Company Name, 4-6
Database Access Password, 4-6
defining paths for the VP System files, 4-15
Digits that Mean YES in Response to a Yes/No Question, 4-8
Digits to Get a Line on External Call, 4-12
Disconnect if More than X Seconds of Continuous Sound Detected, 4-11
Display Mail-Box Passwords on Screen, 4-9
Display Mailbox Passwords on Screen, 4-7
Enable Enhanced Customer Service Reports, 4-15
Fast-Forward/Rewind Should Jump by X Seconds, 4-11
field descriptions, 4-6
Generate Log Data for Reports, 4-10
If Call Lasts More Than x Minutes, Go to Box, 4-7
Max Calls on On-Screen Graph, 4-10
Max Duration for 3-Way Call Before Prompting, 4-14
Maximum Box Length When Caller is Dialing, 4-12
Number of Boxes to Log, 4-8
Number of Boxes to Track in Log, 4-8
Number of Lines Detected, 4-9
Path for Call Log Information, 4-16
Path for Greetings, 4-16
Path for Messages, 4-16
Path for Prompts, 4-15
Path for Question Box Voice Files, 4-16
picture, 4-3, 29-4

Play Message Time and Date, 4-11
Seconds for Fast-Forward/ Rewind Operations, 4-11
Single Message Store Audio Format, 4-12
Stop Recording After X Seconds of Silence, 4-11
Store Call Log to, 4-9
Technician Password, 4-6
Use Enhanced Customer Service Features, 4-15
When Called party Answers, Announce the Call, 4-13
When Called Party Answers, Play Account Number/Caller ID on External Calls, 4-14
When Called Party Answers, Play Account Number/Caller ID on Internal Calls, 4-14
When Called Party Answers, Play His/Her Name, 4-13
General Information screen, Directories tab
picture, 29-22
General Information screen, Message Options tab
picture, 29-23
General Information screen, Miscellaneous Tab screen
picture, 29-21
General Information screen, Security tab
picture, 29-22
General Information screen, Transfer Options tab
picture, 29-23
Generate Log Data for Reports
General Information screen, 4-10
generating
Talking Classifieds reports, 28-11
Get async DTMF
configuration file options, 12-17
Get Callerís Name
Mailbox screen, 5-24
graphics
program screens, 29-1
Greet Sil
configuration file options, 12-18
greeting
recording for mailbox, 10-12
Greeting Recorded
Account Number Box, 5-87
Directory Box, 5-69
Gateway Box screen, 28-6
IVR Box screen, 27-4
Mailbox screen, 5-15
Question Box, 5-48
Routing Box, 5-57
Greeting.Night
configuration file options, 12-18
Greeting.x
configuration file options, 12-18
greetings
copying greetings, names, and messages, 14-2
recording multilingual for individual boxes, 6-65
recording remotely for multilingual boxes, 6-65
restoring names, greetings, and messages, 14-4
selecting operator box greetings, 6-100
using different greetings for busy and no answer, 6-15
using TRANS.TXT and reason codes to play specific greetings, 6-75
Group Box
(Unlabeled List of Members area), 5-66
Box Number, 5-66
List of Members, 5-66
Max Message Length X Seconds, 5-66
Max Message Time, 5-66
Name Recorded, 5-66
Number of Messages, 5-66
Number of Messages Currently in Box, 5-66
setting up, 5-64
understanding, 5-64
Group Box Distribution Priority
configuration file options, 12-19
Group Box screen
picture, 29-9, 29-30
Groups
Call Transfer screen, 4-23
PBX Information screen, 4-23
guest mailboxes
resetting, 7-3
specifying for hotel integration, 7-1
using Wake-up Call feature, 7-1

—H—

hang-up
absence of touch-tones, 17-2
break in line current, 17-1
call progress tones, 17-2
detecting, 17-1
disconnect digit sequence, 17-1
hardware
installing hardware /software required for fax modules, 24-2
hardware and software requirements for DOS-based VP Systems, 21-1
hardware and software requirements for Windows-based VP Systems, 21-2
Hardware Int
configuration file options, 12-19
Hear the Time and Date
options between messages, 10-9
help
Line Status screens, 6-43
Holiday Schedule screen, 4-21
picture, 4-22, 29-5
Holidays screen
picture, 29-24

Hook-flash Length
PBX Information screen, 4-27
Technical Information screen, 4-30
horizontal file format
selecting for a Question Box, 6-94
Host
configuration file options, 12-20
host
transferring files between remote PC and the host PC, 9-6
Host Name
Mailbox screen, 5-42, 5-43
host PCs
connecting remote PC to the host PC, 9-3
installing KeyLink on remote and host PCs, 9-1, 9-2
transferring files between remote PC and the host PC, 9-6
Hotel Guest Privileges Only
Mailbox screen, 5-38
hotel integration
aadministrating Wake-up Calls, 7-2
logging Wake-up Call schedules, 7-2
logging Wake-up Calls, 7-3
making Wake-up Calls, 7-2
resetting guest mailboxes, 7-3
specifying guest mailboxes, 7-1
using features of, 7-1
using Wake-up Call feature, 7-1
Hourly Statistics report, 6-53
hours
default business hours, 1-4
How to Transmit Faxes
Fax Setup screen, 25-8

—I—

If Account Number Already Collected area
Account Number Box, 5-88
If Account Number Not Yet Entered
IVR Box screen, 27-5
If Acct Number Already Collected For This Call
Account Number Box, 5-88
If All Extns Busy
ACD Box, 5-80
If All Lines Are In Use
ACD Box, 5-82
If Answering Machine Detected, Go to Box
Telemarketing Box screen, 22-6
If Call Fails, Try X More Times
Fax Setup screen, 25-10
If Call is via D.I.D., Play Greeting in Language
Mailbox screen, 5-32
If Call Lasts More Than x Minutes, Go to Box
General Information screen, 4-7
If Called Number Does Not Answer, Try Again After X Minutes
Telemarketing Box screen, 22-6
If Called Number is Busy, Try Again After X Minutes
Telemarketing Box screen, 22-5
If Caller Can Order More Documents
Fax Box screen, 25-4
If Caller Chooses ìOther Optionsî
Mailbox screen, 5-31
If Caller Does Not Want to Remain in Queue
ACD Box, 5-82
If Digit Received, Wait for More Digits
Routing Box, 5-63
If Invalid Account Number Entered, Allow X More Attempts
Account Number Box, 5-88
If Invalid Digit Dialed, Go To Box
Routing Box, 5-59
If Match Found, Construct
IVR Box screen, 27-9
If Match Found, Say
IVR Box screen, 27-9
If Match Not Found
IVR Box screen, 27-10
If Maximum Number of Documents Ordered
Fax Box screen, 25-4
If Name Not Found
Directory Box, 5-71
If No Answer, Automatically Make Agent Unavailable
ACD Box, 5-83
If No Digits Dialed
Directory Box, 5-70
Routing Box, 5-58
If There Are No Extensions Active
ACD Box, 5-82
If Unable to Allocate a Mailbox, Go to Box
Auto Allocation screen, 28-16
If Valid Account Number Entered
Account Number Box, 5-89
Ignore Disconnects
configuration file options, 12-20
Ignore DTMF
configuration file options, 12-21
Ignore Initial Disconnect
configuration file options, 12-21
Ignore Nonsilence
configuration file options, 12-21
Immediately Upon Receipt
Mailbox screen, 5-38
In-Band Signaling
call forwarding using voice mail integration with, 6-19
in-band signaling
integrating with PBXís, 17-2
Inbox Voice Messenger for Microsoft Outlook, 23-7
including

time and date announcements, 6-88
incoming call summary
viewing in Line Status screens, 6-47
information
collecting for VP System setup, 2-16
phone system information, 2-21
setting for system, 4-1
specifying in the PBX Setup utility, 3-1
Initial Box (Day Service, Night Service, Lunch Service)
Line Information screen, 4-18
Initial Pause
Setting Up the Other Customizations screen, 4-43
Initial Pause IDP
configuration file options, 12-22
Insert a ë1í for Long-Distance
Fax Setup screen, 25-10
installing
Call Control, 23-47
D/41 boards, 20-11
D/41D boards, 20-8
D/41H boards, 20-15
D/4PCI boards, 20-18
D160SC-LS boards, 20-20
DIALOG/4 boards, 20-1
Dialogic boards, 20-1
DOS-based VP System software, 21-4
Dual Message Store unified messaging, 23-15
Dual Message Store unified messaging setup process, 23-21
GammaLink fax boards, 24-8
GammaLink software, 24-10
hardware /software required for fax modules, 24-2
Inbox Voice Messenger module, 23-43
key, 21-3
KeyLink on remote and host PCs, 9-1, 9-2
kit systems, 21-1
module prompts, 24-1
optional modules, 24-1
optional modules on DOS-based VP systems, 21-4
optional modules on Windows-based VP systems, 21-7
ProLine/2V boards, 20-5
reports package client software, 6-48
Rhetorex boards, 20-21
Rhetorex boards on Windows-based VP systems, 20-25
Satisfaxion fax boards, 24-5
Satisfaxion software, 24-6
Single Message Store unified messaging, 23-36
System Administration and Personal Administration Tools, 23-50
unified messaging, 23-4
unified messaging and e-mail reader on a client PC, 23-27
using the appropriate installation diskettes for DOS-based VP systems, 21-3
VCM client software, 23-1
voice boards, 20-1
Voice Mailbox Administration, 23-47
voice processing board, 21-3
VP software on DOS-based VP systems, 21-3
Web-based System Administration and Personal Administration Tools, 23-50
Windows-based VP System software, 21-6
integrating
call progress tone detection, 17-4
interfacing with PBXís without voice mail integration, 17-4
PBXís, 17-2
PMS System, 7-3
integration
absence of touch-tones, 17-2
break in line current, 17-1
C.O. line identifier digits, 17-3
call progress tone detection, 17-4
call progress tones, 17-2
detecting hang-up, 17-1
disconnect digit sequence, 17-1
in-band signaling, 17-2
integrating with PBXís, 17-2
interfacing with PBXís without voice mail integration, 17-4
out-of-band signaling, 17-2
reason codes, 17-3
station identifier digits, 17-3
understanding for system, 17-1
using translation file TRANS.TXT, 17-4
Inter Digit
configuration file options, 12-22
Internal
configuration file options, 12-22
Interval
Mailbox screen, 5-36
Intervals of X
Mailbox screen, 5-36
Is Account Active
Mailbox screen, 5-41
IVR
notes on delimiters, 27-15
running VRBINDEX, 27-15
setting up custom prompts for IVR, 27-11
setting up IVR application, 27-11
speeding searches for an IVR application, 27-15
using custom prompts for, 27-10
IVR Box
(Unlabeled Box field), 27-5

A Record Matches if, 27-8
accessing IVR Box screen, 27-2
And then, 27-9
And then Search for X More Matching Records, 27-9
Bail-out Digits, 27-5
Box, 27-5
Box Name, 27-4
Box Number, 27-4
Delimiter Between Fields, 27-6
Field Types, 27-6
Field X is, 27-6
Filename, 27-6
Greeting Recorded, 27-4
If Account Number Not Yet Entered, 27-5
If Match Found, Construct, 27-9
If Match Found, Say, 27-9
If Match Not Found, 27-10
Max Secs Between Digits, 27-5
Max Time to Wait Between Digits X Seconds, 27-5
Name of File Containing Data, 27-6
Output Phrase # Recorded, 27-8
Owner, 27-5
Prompt for Input # Recorded, 27-7
setting up, 27-1
Then Search for Up to X More Matching Records, 27-9
IVR Box Page 1 screen
picture, 29-10
IVR Box Page 2 screen
picture, 29-10
IVR Box Page 3 screen
picture, 29-11
IVR Box screen, Data File tab
picture, 29-31
IVR Box screen, Playing Results tab
picture, 29-34
IVR Box screen, Recording Inputs tab
picture, 29-31
IVR Box screen, Recording Outputs tab
picture, 29-32
IVR Box screen, Searching tab
picture, 29-33
IVR module
understanding, 27-1
using, 27-1
IVR Prompt Language
configuration file options, 12-22
IVR Voice File Path
configuration file options, 12-22

—J—

Job Complete
Telemarketing Box screen, 22-3

—K—

Keep Messages New
configuration file options, 12-23
key
installing, 21-3
key system
connecting to VP System, 2-3
KeyLink
connecting remote PC to the host PC, 9-3
File Transfer option, 9-6
installing on remote and host PCs, 9-1, 9-2
transferring files between remote PC and the host PC, 9-6
using, 9-1
KeyLink communications software
equipment requirements, 2-2
kit systems
installing, 21-1
KVT Audio Gen service, 1-13
KVT Database Manager Service, 1-14
KVT Database Manager service, 1-13
KVT E-mail Delivery service, 1-14
KVT FTP Server service, 1-14
KVT Navigator service, 1-14
KVT Report service, 1-14
KVT Sendmail service, 1-14
KVT Voice Mail Manager service, 1-14

—L—

L2 - L9 Directories
file organization, 16-1
LAN
Dual Message Store unified messaging and e-mail reader functionality on, 23-17
LAN requirements
Dual Message Store unified messaging, 23-15, 23-37
language
selecting at beginning of call, 6-63
selecting during call, 6-64
Languages
configuration file options, 12-23
languages
changing, 10-17
switching, 6-63
laptop computer
equipment requirements, 2-2

Last in, first out (LIFO)
Mailbox screen, 5-32
Last Name
Mailbox screen, 5-13
last name
Dial-by-Name directory configuration options, 6-80
LH TTS Voice ID
configuration file options, 12-23
line activity
displaying in Line Status screens, 6-44
Line Groups
Line Information screen, 4-18
line groups
using, 6-87
Line Information screen, 4-16
Initial Box (Day Service, Night Service, Lunch Service), 4-18
Line Groups, 4-18
Maximum Number of Lines Used for ACD Queued Calls, 4-17
Outgoing Calls Allowed, 4-18
picture, 4-17, 29-5, 29-24
Rings to Answer, 4-18
Line Status screens
accessing the database, 6-44
adjusting the PC clock, 6-45
changing the display mode, 6-43
displaying line activity, 6-44
displaying software versions, 6-45
manually activating message waiting lamp refresh, 6-44
resetting a mailbox, 6-45
resetting call counts, 6-44
taking a line off hook, 6-44
terminating a call on a line, 6-43
understanding, 6-42
viewing, 6-42
viewing activity on each line, 6-46
viewing available displays in, 6-45
viewing incoming call summary in, 6-47
viewing outbound telemarketing status in, 6-47
viewing remaining message space in, 6-46
viewing remaining message status in, 6-46
Lines Connected
configuration file options, 12-23
Link Format
configuration file options, 12-23
List of Extensions
ACD Box, 5-78
List of Members
Group Box, 5-66
listening
to new messages, 10-7
to old messages, 10-7
to Question Box answers, 10-17
to saved messages, 10-7
Listing Agent
Listing Box screen, 28-9
Listing Box
accessing, 28-7
accessing Listing Box remotely, 28-10
Box Number, 28-8
Category for Question 1, 2, 3, 4, 28-10
Cross-Reference Number, 28-9
Description, 28-9
Description Recorded, 28-9
Listing Agent, 28-9
Notes, 28-9
Question 1, 2, 3, 4, 28-10
setting up, 28-7
Talking Classifieds Gateway Box, 28-10
understanding, 28-7
Listing Box screen
picture, 29-9, 29-34
lists
Group Box, 5-64
group distribution, 5-64
personal distribution, 5-39, 10-16
live attendant, compared to automated, 1-1
Local Spkr
configuration file options, 12-24
LOG Directory
file organization, 16-4
logging
call logging files, 24-16
fax calls, 25-17
in and out of an ACD group, 6-22
Wake-up Call schedules, 7-2
Wake-up Calls, 7-3
logging into the VP System, 2-12
Login Failure report, 6-55
LOGINS.TXT code
entering, 2-11
logon
specifying rules for automatic logon, 6-78
Long Hook Flash
configuration file options, 12-24
lookups
setting up database lookups, 6-81
Lunch Operator Is Day
configuration file options, 12-24

—M—

M Directory
file organization, 16-1
mailbox
Account Number Box, 5-85
ACD Box, 5-72

adding remotely, 6-58
administrating ACD Boxes, 10-16
allocable mailboxes, 28-16
changing Call Transfer Service for mailbox, 10-14
changing languages, 10-17
changing mailbox options, 10-11
changing Message Notification Service for mailbox, 10-15
changing Pager Service for mailbox, 10-15
changing password for mailbox, 10-13
changing personal distribution list for mailbox, 10-16
completing the Subscriber Mailbox Information worksheet, 2-18
creating a fax switch mailbox, 6-99
deleting remotely, 6-58
Demo Mailbox 9993, 5-44
Directory Box, 5-67
exiting, 10-18
Group Box, 5-64
guest mailboxes for hotel integration, 7-1
identifying yourself as the owner, 10-1
keeping a mailbox out of the Dial-by-Name directory, 6-79
Mailbox screen, 5-12
Main menu, understanding, 10-3
modifying remotely, 6-58
modifying VP system mailbox setups using Microsoft Exchange Administrator, 2-24
new user tutorial, 10-1
performing administration, 6-57
placing an outgoing call, 10-18
Question Box, 5-44
recording greeting for mailbox, 10-12
recording name for mailbox, 10-11
resetting, 5-44
resetting in Line Status screens, 6-45
restoring remotely, 6-59
retrieving message sent to another mailbox, 10-16
reviewing messages scheduled for Future Delivery, 10-15
Routing Box, 5-53
selecting operator box greetings, 6-100
sending messages, 10-10
setting up, 5-4
setting up allocable mailboxes, 28-16
setting up companion listing boxes for automatic allocation mailboxes, 28-17
setting up message delivery, 6-33
setting up multiple operator mailbox, 6-99
suspending remotely, 6-58
understanding prototype mailbox, 5-5
using Supervisor options, 10-18
mailbox 70
default value, 1-5
Mailbox Box screen, Call Transfer tab
picture, 29-35
Mailbox Box screen, Distribution Lists tab
picture, 29-38
Mailbox Box screen, e-Mail tab
picture, 29-39
Mailbox Box screen, Enhanced tab
picture, 29-39
Mailbox Box screen, Follow-Me tab
picture, 29-36
Mailbox Box screen, General tab
picture, 29-35
Mailbox Box screen, Hotel tab
picture, 29-38
Mailbox Box screen, Message Delivery tab
picture, 29-37
Mailbox Box screen, Pager tab
picture, 29-37
Mailbox Box screen, Recording tab
picture, 29-36
Mailbox Delivery report, 6-55
Mailbox Information report, 6-54
Mailbox Operator Access
setting up multiple operator mailbox, 6-100
Mailbox Page 1 screen
picture, 29-11
Mailbox Page 2 screen
picture, 29-12
Mailbox Page 3 screen
picture, 29-12
Mailbox Page 4 screen
picture, 29-13
Mailbox Page 5 screen
picture, 29-13
mailbox reports
available on Windows-based system, 6-52
Mailbox screen, 5-12
(Unlabeled Box field), 5-31
(Unlabeled Members fields), 5-39
Account Number, 5-41
Account Type, 5-41, 5-42
Activate Pager During These Times, 5-29
After Leaving Message, 5-32
After Playing Greeting, 5-30
Assume no-answer after X rings, 5-23
At Intervals of X Minutes, 5-29
Automatically Forward NEW Messages to Box X After X Hours, 5-33
Automatically Move/Copy New Messages to Box/SMTP Address X After X Hours, 5-33
Box, 5-31

Box Number, 5-13
Call, 5-34
Call Schedule, 5-29
Call the Pager X times, 5-28
Class of Service, 5-17
Currently Enabled, 5-24, 5-29, 5-36
Currently Scheduled, 5-39
Default Account for Outgoing Mail, 5-41
Deliver These Messages, 5-36
distribution list setup, 5-39
Do Not Follow Me, 5-25
Dual Message Store, 5-17
During X, 5-33, 5-36
Edit button on Follow-Me tab, 5-26
E-mail Address, 5-41
E-mail Subject, 5-34, 5-37
E-mail tab, 5-39
Enabled, 5-29, 5-39
End, 5-38
Enhanced tab, 5-39
First in, first out (FIFO), 5-32
First Name, 5-13
Follow-Me Automatically, 5-26
Follow-Me When Caller Requests to, 5-26
Friendly Name, 5-41
Get Callerís Name, 5-24
Greeting Recorded, 5-15
Host Name, 5-42, 5-43
Hotel Guest Privileges Only, 5-38
If Call is via D.I.D., Play Greeting in Language, 5-32
If Caller Chooses ìOther Optionsî, 5-31
Immediately Upon Receipt, 5-38
Interval, 5-36
Intervals of X, 5-36
Is Account Active, 5-41
Last in, first out (LIFO), 5-32
Last Name, 5-13
Members, 5-39
Message Delivery, 5-34
Message Playback, 5-32
Minutes Between Calls, 5-29
Move Down button on Follow-Me tab, 5-27
Move Up button on Follow-Me tab, 5-27
Name (first), 5-13
Name (last), 5-13
Name Recorded, 5-14
New, 5-20
New Messages, 5-20
Non - UM, 5-17
Old, 5-20
Old Messages, 5-20
Override Class of Service Operator, 5-25
Page 5 fields, 5-39
Pager Number, 5-27
Pager Type, 5-28
Password, 5-14, 5-43
Record All Calls, 5-24
record call setup, 5-39
Record Every Call, 5-24
Remove button on Follow-Me tab, 5-27
Repeat, 5-35
Restricted - Client Of, 5-17
Rings to Answer, 5-23
Run This Cycle X Times, 5-36
Run This Sequence X Times, 5-36
Schedule, 5-33, 5-36, 5-37
Send Fax-Mails To, 5-38
Sequence to Turn OFF Message-Waiting Lamp, 5-20
Sequence to Turn ON Message-Waiting Lamp, 5-19
Single Message Store, 5-17
Start, 5-37
Times to Call, 5-28
To, 5-22
Transfer Schedule, 5-25
Transfer to, 5-22
Transfer To / During Schedule, 5-25
Transfer Type, 5-21
Understanding the E-mail Tab, 5-39
Use Language, 5-32
Use Three-Way Calling, 5-23
User Name, 5-43
Uses Client Desktop Applications, 5-17
View Schedules button on Follow-Me tab, 5-27
Wait Until Mailbox Contains X Fax Messages (Maximum X Minutes), 5-38
Wake-Up Time, 5-38
X Times, 5-35
Mailbox Suspension Timer, 12-25
Mailbox Usage report, 6-55
Main menu, understanding, 10-3
Make Calls on area
Telemarketing Box screen, 22-4
MAKEBOX.EXE utility
using, 5-3
making
backups, 14-1
boxes, 5-1
making local connections to the board
using an audio coupler, 2-6
using two telephone lines, 2-5
manual transfer bypass, using, 6-12
manually
activating message waiting lamp refresh in Line Status screens, 6-44
mapping
menu options, 19-1

Max Calls on On-Screen Graph
General Information screen, 4-10
Max Digits
Telemarketing Box screen, 22-5
Max Duration for 3-Way Call Before Prompting
General Information screen, 4-14
Max Faxes We Will Send Per Call
Fax Setup screen, 25-8
Max Inactive
configuration file options, 12-24
Max Length
Question Box, 5-52
Max Lines Allowed To Hold For One Box
Class of Service screen, 4-38
Max Lines to Hold
default value, 1-5
Max Lockup
configuration file options, 12-24
Max Message Length X Seconds
Group Box, 5-66
Max Message Time
Group Box, 5-66
Max Number of Digits to Collect
Directory Box, 5-70
Max Password Length
configuration file options, 12-25
Max Secs Between Digits
IVR Box screen, 27-5
Max Silence
Question Box, 5-52
Max Time
Question Box, 5-52
Max Time for Three-Way Call
Call Transfer screen, 4-29
Max Time to Wait Between Digits X Seconds
IVR Box screen, 27-5
Max TTS Streams
configuration file options, 12-25
Maximum Box Length
General Information screen, 4-12
Maximum Box Length When Caller is Dialing
Setting Up the Other Customizations screen, 4-42
Maximum Greeting Length
Class of Service screen, 4-35
default value, 1-4
Maximum Message Length
Class of Service screen, 4-36
default value, 1-4
Maximum Number of Digits Allowed
Account Number Box, 5-87
Maximum Number of Digits in Account Number
Account Number Box, 5-87
Maximum Number of Digits to Accept
Directory Box, 5-70
Maximum Number of Digits to Dial
Telemarketing Box screen, 22-5
Maximum Number of Documents to Send per Call
Fax Setup screen, 25-8
Maximum Number of Greetings
Class of Service screen, 4-35
default value, 1-4
Maximum Number of Lines Allowed to Hold for this Mailbox
Class of Service screen, 4-38
Maximum Number of Lines Used for ACD Queued Calls
Line Information screen, 4-17
Maximum Number of Messages
Class of Service screen, 4-35
default value, 1-4
Mbox Default Digit
configuration file options, 12-25
Members
Mailbox screen, 5-39
Menu
configuration file options, 12-25
menu options
accessing for DOS, 1-16
accessing for Windows NT, 1-18
mapping, 19-1
message counts
viewing message counts in the Message Status Viewer application, 6-48
Message Delivery
Mailbox screen, 5-34
message delivery
programming for digital pagers, 6-31
programming tone pagers for, 6-26
setting up, 6-33
message distribution
Group Box, 5-64
personal distribution list, 5-39
personal distribution lists, 5-39
Message Handshake
configuration file options, 12-26
Message Notification Service
changing for mailbox, 10-15
Message Pause Time
configuration file options, 12-26
Message Playback
Mailbox screen, 5-32
message space
viewing remaining space in Line Status screens, 6-46
message status
viewing in Line Status screens, 6-46
Message Status Viewer application, 1-9
using, 6-48
message waiting lamp
manually refreshing in Line Status screens, 6-44
message waiting lamps
manually refreshing in the Voice Mail Viewer application, 6-48

messages
copying greetings, names, and messages, 14-2
Delete Message, 10-8
Delete the Message, 10-9
error messages of system, 18-1
Forward the Message, 10-8
Hear the Time and Date, 10-9
listening to new messages, 10-7
listening to old messages, 10-7
listening to saved messages, 10-7
More Options, 10-8
Next Message, 10-8
options between messages, 10-7
Replay Message, 10-7
Reply to a Message, 10-9
restoring names, greetings, and messages, 14-4
retrieving message sent to another mailbox, 10-16
reviewing messages scheduled for Future Delivery, 10-15
Save As New, 10-8
sending, 10-10
sending broadcast messages, 6-61
Transfer to Message Sender, 10-9
Microsoft Exchange Administrator
using to modify VP system mailboxes, 2-24
Min # of Digits
Question Box, 5-52
Min Time
Question Box, 5-52
Minimum Message
configuration file options, 12-26
Minimum Number of Digits in Account Number
Account Number Box, 5-87
Minimum Number of Digits Required
Account Number Box, 5-87
Minutes Between Calls
Mailbox screen, 5-29
modifying
automatic maintenance schedule on DOS-based VP systems, 21-6
configuration file for a fax switch, 6-99
existing prompts, 25-19
mailbox remotely, 6-58
modifying prompts in FaxMail module, 26-6
Question Box remotely, 6-60
Routing Box, 6-59
Talking Classifieds existing prompts, 28-19
VM.CFG file for multilingual systems, 6-66
modules
activating modules, 24-1
fax distribution module, 25-1
FaxMail module, 26-1
installing hardware /software required for fax modules, 24-2
installing module prompts, 24-1
installing optional modules, 24-1
installing optional on DOS-based VP systems, 21-4
installing optional on Windows-based VP systems, 21-7
IVR module, 27-1
Outbound Telemarketing module, 22-1
Talking Classifieds module, 28-1
modules, understanding, 1-6
Monitor
configuration file options, 12-26
using, 6-3
using with outgoing calls, 6-90
More Options
options between messages, 10-8
Move Down button on Follow-Me tab
Mailbox screen, 5-27
Move Up button on Follow-Me tab
Mailbox screen, 5-27
moving information from DOS- to Windows-based VP systems, 2-7
multilingual feature
using feature, 6-63
multiple operator mailbox
Mailbox Operator Access, 6-100
Routing Box Operator Access, 6-99
setting up, 6-99
MW Off Reps
configuration file options, 12-26
MW On Reps
configuration file options, 12-27
MW Priority
configuration file options, 12-27
MW Q Size
configuration file options, 12-27

—N—

name
copying greetings, names, and messages, 14-2
prompting callers for names, 6-14
recording for mailbox, 10-11
restoring names, greetings, and messages, 14-4
Name (first)
Mailbox screen, 5-13
Name (last)
Mailbox screen, 5-13
Name of File Containing Data
IVR Box screen, 27-6
Name of File Containing ìDo not Callî Numbers
Telemarketing Box screen, 22-5
Name of File Containing Telephone Numbers
Telemarketing Box screen, 22-4
Name of File to Log Telemarketing Call Results
Telemarketing Box screen, 22-5

Name Recorded
Group Box, 5-66
Mailbox screen, 5-14
network messaging
setting up, 6-106
New
Mailbox screen, 5-20
New Answers Activate Message Delivery in Ownerís Mailbox
Question Box, 5-49
New Messages
Mailbox screen, 5-20
new messages
listening to, 10-7
New Msgs
Question Box, 5-52
new user tutorial, completing, 10-1
Next Message
options between messages, 10-8
Night Operator Box
ACD Box, 5-78
Night service
supervisor control, 6-38
switching service modes remotely, 6-62
No Account in Log
configuration file options, 12-27
No Answer
using different greetings for busy and no answer, 6-15
No Name Transfers
configuration file options, 12-27
No PC Beep
configuration file options, 12-28
No Record Beep
configuration file options, 12-28
No Serial MW Refresh
configuration file options, 12-28
No Transfer
Transfer Type, 5-21
transfer types, 6-6
No Video Memory
configuration file options, 12-28
Non - UM
Mailbox screen, 5-17
Norton Utilities
defragmenting systems using, 21-5
Notes
Listing Box screen, 28-9
Notify Priority
configuration file options, 12-28
Notify Reps
configuration file options, 12-28
Notify Rings
configuration file options, 12-28
NT
accessing VP System menu options, 1-18
VP system applications, 1-7
VP system services, 1-7
NTRenew code
activating modules, 24-1
null modem serial cable
equipment requirements, 2-2
number
storing calling partyís number, 6-69
Number of Boxes to Log
General Information screen, 4-8
Number of Boxes to Track in Log
General Information screen, 4-8
number of letters to request
Dial-by-Name directory configuration options, 6-80
Number of Lines Detected
General Information screen, 4-9
Number of Messages
Group Box, 5-66
Number of Messages Currently in Box
Group Box, 5-66
Number of Re-Tries
Telemarketing Box screen, 22-6
Number of Seconds of Non-Silence to End Recording
Technical Information screen, 4-31
Number of Seconds of Silence to End Recording
Technical Information screen, 4-31
Number of Seconds to Wait For a Digit
Routing Box, 5-58
Number of Seconds to Wait for a Digit
Account Number Box, 5-88
Number of Times to Play Greeting
Directory Box, 5-70
Routing Box, 5-58
Number of Times to Re-try Busy / No-Answer Numbers
Telemarketing Box screen, 22-6
NUMLINES.TXT code
entering, 2-11

—O—

off hook
taking a line off hook in Line Status screens, 6-44
Offer Options After
ACD Box, 5-81
Offer Other Options After X Announcements
ACD Box, 5-81
Offhook Delay
configuration file options, 12-29
Old
Mailbox screen, 5-20
Old Messages
Mailbox screen, 5-20
old messages
listening to, 10-7

Old Msgs
Question Box, 5-52
Omit Group Sender
configuration file options, 12-29
On Answer, Go to Box
Telemarketing Box screen, 22-6
On Answer, Pause for X Seconds, Waiting for PBX Digits
PBX Information screen, 4-28
On Exit
Gateway Box screen, 28-7
On Exit from Talking Classifieds Area
Gateway Box screen, 28-7
Onhook DTMF
configuration file options, 12-29
Online Help application, 1-11
operator
selecting operator box greetings, 6-100
setting up multiple operator mailbox, 6-99
Operator Box (Day)
ACD Box, 5-78
Operator Box (day)
default value, 1-5
Operator Box (Day) (Night)
Class of Service screen, 4-38
Operator Box (Night)
ACD Box, 5-78
optional modules
activating modules, 24-1
hardware /software required for fax modules, 24-2
installing, 24-1
installing hardware /software required for fax modules, 24-2
installing module prompts, 24-1
installing on DOS-based VP systems, 21-4
installing on Windows-based VP systems, 21-7
optional modules, understanding, 1-6
options
between messages, 10-7
changing for mailbox, 10-11
for new user tutorial, 10-3
mapping menu options, 19-1
using Supervisor options, 10-18
organization
file organization, 16-1
Other Customizations screen
picture, 4-40, 29-6
Outbound Delay
configuration file options, 12-29
Outbound Telemarketing module
setting up Telemarketing Box, 22-1
using, 22-1
outbound telemarketing status
viewing in Line Status screens, 6-47
outgoing call, placing, 10-18
outgoing calls
placing, 6-89
understanding, 6-90
using Monitor feature with outgoing calls, 6-90
Outgoing Calls Allowed
Line Information screen, 4-18
out-of-band signaling
integrating with PBXís, 17-2
Output Phrase # Recorded
IVR Box screen, 27-8
Override Class of Service Operator
Mailbox screen, 5-25
overview
automated attendant, 1-1
box, 5-1
box types, 1-2
default database, 1-3
voice mail, 1-1
VP System, 1-1
Owner
Account Number Box, 5-87
ACD Box, 5-77
Fax Box screen, 25-3
IVR Box screen, 27-5
Routing Box, 5-58
owner
identifying yourself as the mailbox owner, 10-1
Owner Box
Fax Box screen, 25-3
Question Box, 5-49
owners, specifying for Routing Box, 5-55

—P—

P Directory
file organization, 16-1
P.A. system
announcing a call over, 6-38
PA.Busy
configuration file options, 12-30
PA.Cancel
configuration file options, 12-30
PA.Int
configuration file options, 12-31
PA.Repeats
configuration file options, 12-31
Page Immediately, After Playing Greeting, 5-30
page number
programming digital pagers, 6-28
Pager Append
configuration file options, 12-31
Pager Number
Mailbox screen, 5-27
Pager Prefix
configuration file options, 12-31
Pager Retry

configuration file options, 12-31
Pager Service
changing for mailbox, 10-15
Pager Time
configuration file options, 12-32
Pager Trail
configuration file options, 12-31
Pager Type
Mailbox screen, 5-28
paging
setting up, 6-24
setting up a schedule, 6-31
setting up digital pagers, 6-27
setting up tone pagers, 6-24
setting up voice pagers, 6-31
troubleshooting, 6-32
paper
sending a fax into a Fax Box from paper, 25-14
Password
Mailbox screen, 5-14, 5-43
password
changing for mailbox, 10-13
default Technician password, 1-4
default value, 1-5
password length
default value, 1-5
passwords
logging into the VP System, 2-12
Path for Call Log Information
General Information screen, 4-16
Path for Fax Distribution Documents
Fax Setup screen, 25-10
Path for Fax-Mail Documents
Fax Setup screen, 25-11
Path for Greetings
General Information screen, 4-16
Path for Messages
General Information screen, 4-16
Path for Prompts
General Information screen, 4-15
Path for Question Box Voice Files
General Information screen, 4-16
paths, defining paths for the VP System files, 4-15
Pause Length
PBX Information screen, 4-27
Technical Information screen, 4-30
PBX
C.O. line identifier digits, 17-3
call progress tone detection, 17-4
connecting seral cable between VP System and PBX, 2-5
connecting to VP System, 2-3
in-band signaling, 17-2
integrating with, 17-2
interfacing with PBXís without voice mail integration, 17-4
out-of-band signaling, 17-2
reason codes, 17-3
station identifier digits, 17-3
typical VP System setup, 2-5
using translation file TRANS.TXT, 17-4
PBX Information screen, 4-23
Digits to Get a Line on External Call, 4-27
Disconnect Digit Sequence, 4-27
Groups, 4-23
Hook-flash Length, 4-27
On Answer, Pause for X Seconds, Waiting for PBX Digits, 4-28
Pause Length, 4-27
picture, 4-24
Sequence to Complete a Transfer (Internal / External), 4-25
Sequence to Initiate a Transfer (Internal / External), 4-24
Sequence to Return from Busy (Internal / External), 4-26
Sequence to Return from Call Screening (Internal / External), 4-26
Sequence to Return from No-Answer (Internal / External), 4-26
Sequence to Transfer a 3-Way Call (Internal / External), 4-25
Transfer Bypass Digit Arrives area, 4-28
Wait for Dial Tone When Making a Call, 4-26
PBX Information screen, Call Transfer Sequences tab
picture, 29-25
PBX Information screen, Miscellaneous tab
picture, 29-25
PBX Setup
using Teleparameter feature to run setup, 11-1
PBX Setup application, 1-12
PBX Setup utility
running, 3-1
PBXLINK.TXT code
entering, 2-11
PBXpert/32
using a TRAIN for Dialogic boards, 13-17
PC clock
adjusting in Line Status screens, 6-45
performing
call transfer, 6-5
mailbox administration, 6-57
port administration remotely, 6-61
Question Box administration remotely, 6-60
Routing Box administration, 6-59
Personal Administration Tool
using, 23-50
Personal Administration Tools
installing, 23-50

Personal Communication Module (PCM)
using, 23-50
personal distribution list, 10-16
changing for mailbox, 10-16
personal distribution lists, 5-39
phone system information, 2-21
pictures
program screens, 29-1
placing
call in the queue, 6-21
outgoing calls, 6-89
placing an outgoing call, 10-18
Play Back the Number for Confirmation
Account Number Box, 5-88
Play Digit Answers for Confirmation
Question Box, 5-49
Play Greeting X Times
Routing Box, 5-58
Play Menu After Greeting
Class of Service screen, 4-37
default value, 1-5
Play Message Time and Date
General Information screen, 4-11
Setting Up the Other Customizations screen, 4-40
Play System Menu after Personal Greeting
Class of Service screen, 4-37
Play Voice Answers for Confirmation
Question Box, 5-49
Playback Delay
configuration file options, 12-32
playing
announcements to queued calls, 6-21
using TRANS.TXT and reason codes to play specific greetings, 6-75
PMS System
integrating with the VP System, 7-3
PMS Via Text Files
configuration file options, 12-33
Pooled Ring
configuration file options, 12-33
Port Activity report, 6-53
port administration
performing remotely, 6-61
Port Contention report, 6-54
Port Contention Trend by Day of Week report, 6-54
Port Contention Trend by Month report, 6-54
port number
specifying digit translation based on port number, 6-77
portable diskette drive
equipment requirements, 2-1
ports
adding additional, 2-9
sharing fax ports, 24-12
pound character
using special characters in database lookups files, 6-83
Prefix a Digit-1 For Long-Distance
Fax Setup screen, 25-10
prefixing the call back number
digital pagers, 6-30
preparing
Talking Classifieds reports, 28-12
preparing the system, 2-1
preventing
prompts from playing, 15-23
printing
Question Box data, 6-94
Talking Classifieds reports, 28-13
product differences, understanding, 1-6
program screens, 29-1
Account Box screen, 29-27
Account Number Box screen, 29-7
ACD Box screen, 29-7
ACD Box screen, Enhanced tab, 29-29
ACD Box screen, General tab, 29-27
ACD Box screen, Queuing Options tab, 29-28
ACD Box screen, Recorded Announcements tab, 29-28
Automatic Mailbox Allocation screen, 29-1, 29-15
Business Hours screen, 4-19, 29-1, 29-16
Call Transfer screen, 4-23, 29-2
Class of Service screen, 4-33, 29-2, 29-16
Class of Service screen, Call Holding Tab screen, 29-17
Class of Service screen, Call Restrictions Tab screen, 29-18
Class of Service screen, Greetings Tab screen, 29-17
Classifieds Gateway screen, 29-3
Custom Flags screen, 4-45, 29-18
Directory Box screen, 29-8, 29-29
DOS-based VP System, 29-1
DOS-based VP System Box Setup screens, 29-7
Fax Box screen, 29-8, 29-30
Fax Distribution Restrictions screen, 29-4
Fax Setup screen, 29-3
Fax Setup screen, Miscellaneous tab, 29-19
Fax Setup screen, Restricted Numbers tab, 29-21
Fax Setup screen, Wiring tab, 29-20
General Information screen, 4-3, 29-4
General Information screen, Directories tab, 29-22
General Information screen, Message Options tab, 29-23
General Information screen, Miscellaneous tab, 29-21
General Information screen, Security tab, 29-22

General Information screen, Transfer Options tab, 29-23
Group Box screen, 29-9, 29-30
Holiday Schedule screen, 4-22, 29-5
Holidays screen, 29-24
IVR Box Page 1 screen, 29-10
IVR Box Page 2 screen, 29-10
IVR Box Page 3 screen, 29-11
IVR Box screen, Data File tab, 29-31
IVR Box screen, Playing Results tab, 29-34
IVR Box screen, Recording Inputs tab, 29-31
IVR Box screen, Recording Outputs tab, 29-32
IVR Box screen, Searching tab, 29-33
Line Information screen, 4-17, 29-5, 29-24
Listing Box screen, 29-9, 29-34
Mailbox Box screen, Call Transfer tab, 29-35
Mailbox Box screen, Distribution Lists tab, 29-38
Mailbox Box screen, e-Mail tab, 29-39
Mailbox Box screen, Enhanced tab, 29-39
Mailbox Box screen, Follow-Me tab, 29-36
Mailbox Box screen, General tab, 29-35
Mailbox Box screen, Hotel tab, 29-38
Mailbox Box screen, Message Delivery tab, 29-37
Mailbox Box screen, Pager tab, 29-37
Mailbox Box screen, Recording tab, 29-36
Mailbox Page 1 screen, 29-11
Mailbox Page 2 screen, 29-12
Mailbox Page 3 screen, 29-12
Mailbox Page 4 screen, 29-13
Mailbox Page 5 screen, 29-13
Other Customizations screen, 4-40, 29-6
PBX Information screen, 4-24
PBX Information screen, Call Transfer Sequences tab, 29-25
PBX Information screen, Miscellaneous tab, 29-25
Question Box screen, 29-14, 29-40
Routing Box screen, 29-14, 29-41
Serial Port Setup screen, 29-26
Talking Classifieds Gateway Box screen, 29-41
Technical Information screen, 4-30, 29-6
Telemarketing Box screen, 29-15
Telemarketing Box screen, Call Control tab, 29-43
Telemarketing Box screen, File Names tab, 29-44
Telemarketing Box screen, When to Call tab, 29-42
Trace Setup screen, 4-44, 29-26
Windows-based VP System, 29-15
Windows-based VP System Box Setup screens, 29-27

programming
Fax Box, 24-15

ProLine/2V boards, installing, 20-5
Prompt for Input # Recorded
IVR Box screen, 27-7
prompting
callers for names, 6-14
prompts
copying pre-recorded modifies prompts, 25-19
copying pre-recorded prompts, 26-6
copying Talking Classifieds pre-recorded prompts, 28-19
installing module prompts, 24-1
modifying existing prompts, 25-19
modifying prompts in FaxMail module, 26-6
modifying Talking Classifieds existing prompts, 28-19
preventing prompts from playing, 15-23
recording, 15-20
recording multilingual prompts, 6-64
system prompts, 15-1
understanding prompt formats, 15-20
using custom prompts for IVR, 27-10
using Fax Distribution prompts, 25-18
using new and modified prompts in FaxMail module, 26-5
using NTPROMPT, 15-21
using pre-recorded prompt options, 15-24
using RPROMPT, 15-21
using Talking Classifieds prompts, 28-18
using the Sound Recorder, 15-23
using VPROMPT, 15-21
prototype mailbox
understanding, 5-5
prototype mailbox 9994
default values, 1-5
Proxy E-mail Client service, 1-15
Pulse Calibration
configuration file options, 12-34
Pulse Speed
configuration file options, 12-34

—Q—

Qbox Archive
configuration file options, 12-34
Qbox Data Path
configuration file options, 12-34
Qbox Data Print
configuration file options, 12-34
Qbox Data Print Eject
configuration file options, 12-34
Qbox Hide Acct Numbers
configuration file options, 12-35
Qbox Pos Confirm
configuration file options, 12-35
Qbox Use Confirm Numbers

configuration file options, 12-35
Question 1, 2, 3, 4
Listing Box screen, 28-10
Question 1, 2, 3, 4 Recorded
Gateway Box screen, 28-6
Question Box
(Unlabeled Box field), 5-51
adding remotely, 6-60
After Answering Questions, 5-50
After Questions, 5-50
Answer Type, 5-51
archiving collected data, 6-94
Bail-out Digits, 5-50
Box, 5-51
Box Name, 5-48
Box Number, 5-48
confirming data entry digits, 6-95
deleting remotely, 6-60
Exit Digits, 5-50
file organization, 16-3
Greeting Recorded, 5-48
listening to answers, 10-17
Max Length, 5-52
Max Silence, 5-52
Max Time, 5-52
Min # of Digits, 5-52
Min Time, 5-52
modifying remotely, 6-60
New Answers Activate Message Delivery in Ownerís Mailbox, 5-49
New Msgs, 5-52
Old Msgs, 5-52
Owner Box, 5-49
performing administration remotely, 6-60
Play Digit Answers for Confirmation, 5-49
Play Voice Answers for Confirmation, 5-49
printing data from, 6-94
providing confirmation numbers, 6-92
Question Recorded, 5-51
Remote Destination, 5-50
Replay Digit Answers for Verification, 5-49
Replay Voice Answers for Verification, 5-49
selecting file formats, 6-93
setting up, 5-44
setting up for data entry, 6-91
specifying an exit digit, 6-92
specifying data file name, 6-92
specifying horizontal file formats, 6-94
specifying vertical file formats, 6-93
Store Responses in Remote Location, 5-49
Trigger Notification, 5-49
understanding, 5-44
using data entry Question Boxes, 6-91
using more than 10 questions, 6-91
Question Box screen
picture, 29-14, 29-40
Question Recorded
Question Box, 5-51
queue
placing call in, 6-21
playing announcements to queued calls, 6-21
Queue Announcement x Recorded
ACD Box, 5-82

—R—

Re- Start Counter Each Time Mailbox is Opened
Auto Allocation screen, 28-16
reason codes
C.O. line digits considerations, 6-73
D.I.D. line considerations, 6-73
integrating with PBXís, 17-3
Sent First, 6-72
Sent Last, 6-70
using, 6-70
using TRANS.TXT and reason codes to play specific greetings, 6-75
Record All Calls
Mailbox screen, 5-24
Record Announcement buttons
ACD Box, 5-82
record call setup
Mailbox screen, 5-39
Record Every Call
Mailbox screen, 5-24
Record Immediately, After Playing Greeting, 5-30
Record then Page, After Playing Greeting, 5-31
recording
calls, 6-103
greeting for mailbox, 10-12
making local connections to the board, 2-5
multilingual box greetings remotely, 6-65
multilingual greetings for individual boxes, 6-65
multilingual prompts, 6-64
name for mailbox, 10-11
prompts, 15-20
specifying rules for recording calls, 6-77
Recording properties
adjusting, 15-23
recording tone
disabling, 6-77
Remain Offhook
configuration file options, 12-35
remote
accessing remote Listing Box, 28-10
connecting remote PC to the host PC, 9-3
installing KeyLink on remote and host PCs, 9-1, 9-2

transferring files between remote PC and the host PC, 9-6
Remote Destination
Question Box, 5-50
Remote Pause
configuration file options, 12-36
Remove button on Follow-Me tab
Mailbox screen, 5-27
Renew code
activating modules, 24-1
entering, 2-10
Repeat
Mailbox screen, 5-35
Repeat Account Number for Verification
Account Number Box, 5-88
Repeat MW
configuration file options, 12-36
Replay Digit Answers for Verification
Question Box, 5-49
Replay Message, options between messages, 10-7
Replay Voice Answers for Verification
Question Box, 5-49
Reply to a Message
options between messages, 10-9
reports
accessing on Windows-based VP systems, 6-49
available on Windows-based system, 6-52
Class of Service, 6-53
customizing on Windows-based VP systems, 6-51
Default Password, 6-55
Enhanced Customer Service, 5-78
generating on Windows-based VP systems, 6-49
generating Talking Classifieds reports, 28-11
Hourly Statistics, 6-53
installing client software, 6-48
Login Failure report, 6-55
Mailbox Delivery, 6-55
Mailbox Information, 6-54
Mailbox Usage, 6-55
Port Activity, 6-53
Port Contention, 6-54
Port Contention Trend by Day of Week, 6-54
Port Contention Trend by Month, 6-54
preparing Talking Classifieds reports, 28-12
printing Talking Classifieds reports, 28-13
setting up defaults, 6-50
viewing, 6-48
viewing and working with on Windows-based VP systems, 6-50
requirements
DOS-based VP Systems, 21-1
Dual Message Store unified messaging, 23-15, 23-37
Dual Message Store unified messaging client PC, 23-27
equipment, 2-1
Windows-based VP Systems, 21-2
reserved boxes
understanding, 5-3
resetting
a mailbox in Line Status screens, 6-45
a mailbox in the Voice Mail Viewer application, 6-47
call counts in Line Status screens, 6-44
call counts in the Voice Mail Viewer application, 6-47
guest mailboxes, 7-3
resetting a mailbox, 5-44
Resolution area
Fax Setup screen, 25-9
Response Time
configuration file options, 12-36
Restart Timer Each Time Mailbox is Opened
Auto Allocation screen, 28-16
restoring
AUTOEXEC.BAT and CONFIG.SYS files, 14-3
database and setup files, 14-3
files, 14-3
mailbox remotely, 6-59
names, greetings, and messages, 14-4
Restricted - Client Of
Mailbox screen, 5-17
Restricted Digits
default value, 1-5
Restricted Numbers
Class of Service screen, 4-39
Restriction Type
Fax Restriction screen, 25-11
Results
Telemarketing Box screen, 22-5
retrieving
fax from the VP System, 25-15
FaxMail documents, 26-3
message sent to another mailbox, 10-16
Retry Busy Number
Telemarketing Box screen, 22-5
Retry Fax Always
configuration file options, 12-36
Re-Try No-Ans Number
Telemarketing Box screen, 22-6
reviewing
Fax Log file, 25-18
messages scheduled for Future Delivery, 10-15
Rew Digit
configuration file options, 12-37
Rhetorex
using Accucall for Rhetorex boards, 13-1

using Accucall for Rhetorex boards in Windows-based systems, 13-18
Rhetorex boards
configuring systems using, 6-98
Rhetorex boards, installing, 20-21
Rhetorex boards, installing on Windows-based VP systems, 20-25
Ring On
configuration file options, 12-37
Ring Reset
configuration file options, 12-37
Rings to Answer
ACD Box, 5-79
Line Information screen, 4-18
Mailbox screen, 5-23
Route Call Based On
Call Sequence Number, 5-60
Database Lookup, 5-62
Date, 5-61
Day/Night Service, 5-62
Days of Week, 5-61
Digits Dialed, 5-60
Routing Box, 5-60
Time of Day, 5-62
routing
completing the Routing worksheet, 2-20
using database lookups to route calls, 6-82
Routing Box
(Unlabeled Box field), 5-59
adding remotely, 6-59
Box, 5-59
Box Name, 5-57
Box Number, 5-57
deleting remotely, 6-59
Destination for Digit fields, 5-63
Greeting Recorded, 5-57
If Digit Received, Wait for More Digits, 5-63
If Invalid Digit Dialed, Go To Box, 5-59
If No Digits Dialed, 5-58
modifying remotely, 6-59
Number of Seconds to Wait For a Digit, 5-58
Number of Times to Play Greeting, 5-58
Owner, 5-58
performing administration, 6-59
Play Greeting X Times, 5-58
Route Call Based On, 5-60
setting up, 5-53
understanding, 5-53
Voice, 5-63
Wait X Seconds for a Digit, 5-58
When Digit Received, Wait for More Digits, 5-63
Routing box 800
default, 1-4
Routing Box 800, 801,821
understanding, 5-55
Routing box 801
default, 1-4
Routing box 821
default, 1-4
Routing Box Operator Access
setting up multiple operator mailbox, 6-99
Routing Box owners, specifying, 5-55
Routing Box screen
picture, 29-14, 29-41
Run This Cycle X Times
Mailbox screen, 5-36
Run This Sequence X Times
Mailbox screen, 5-36
running
call transfer, 6-5
using Teleparameter feature to run PBX Setup, 11-1
VP System, 2-12
VRBINDEX, 27-15

—S—

Same Call Fax OK
configuration file options, 12-37
Same Call Retrieval
FaxMail module, 26-3
Sampling Rate
configuration file options, 12-38
Satisfaxion fax boards
configuring, 24-6
installing, 24-5
Satisfaxion software
installing, 24-6
Save As New
options between messages, 10-8
Save Trace
configuration file options, 12-39
saved messages
listening to, 10-7
saving
calling partyís number, 6-69
Say Box Number Before Transferring
Directory Box, 5-72
Say Position in Line
ACD Box, 5-81
Schedule
Mailbox screen, 5-33, 5-36, 5-37
schedule
completing the Subscriber Schedule worksheet, 2-19
modifying automatic maintenance schedule on DOS-based VP systems, 21-6
setting up for paging, 6-31
Screen
Transfer Type, 5-21, 6-6

screen
Fax Box screen, 25-1, 25-2
Screen Saver
configuration file options, 12-39
searches
speeding searches for an IVR application, 27-15
Seconds for Fast-Forward/ Rewind Operations
General Information screen, 4-11
selecting
DOS-based VP System menu options, 1-16
language at beginning of call, 6-63
language during call, 6-64
Windows NT-based VP System menu options, 1-18
semi-colon character
using special characters in database lookups files, 6-84
Send Disconnect
configuration file options, 12-39
Send Fax Mails To
Mailbox screen, 5-38
Send options area
Fax Setup screen, 25-8
sending
broadcast messages, 6-61
fax into a fax Box, 25-12
fax into a Fax Box from paper, 25-14
fax into a Fax Box using Fax from the Desktop, 25-13
FaxMail document, 26-1
FaxMail document from an open mailbox, 26-5
using third party application to send faxes, 24-14
sending messages, 10-10
Sending Resolution
Fax Setup screen, 25-9
Sequence to Complete a Transfer (Internal / External)
Call Transfer screen, 4-25
PBX Information screen, 4-25
Sequence to Initiate a Transfer (Internal / External)
Call Transfer screen, 4-24
PBX Information screen, 4-24
Sequence to Return from Busy (Internal / External)
Call Transfer screen, 4-26
PBX Information screen, 4-26
Sequence to Return from Call Screening (Internal / External)
PBX Information screen, 4-26
Sequence to Return from from Call Screening (Internal / External)
Call Transfer screen, 4-26
Sequence to Return from No-Answer (Internal / External)
Call Transfer screen, 4-26
PBX Information screen, 4-26
Sequence to Transfer a 3-Way Call (Internal / External)
PBX Information screen, 4-25
Sequence to Transfer a Three-Way Call (Internal / External)
Call Transfer screen, 4-25
Sequence to Turn OFF Message-Waiting Lamp
Mailbox screen, 5-20
Sequence to Turn ON Message-Waiting Lamp
Mailbox screen, 5-19
serial administration
using, 9-1
Serial Administrator
screen resolution requirements, 9-6
using, 9-1
serial cable
connecting between VP System and PBX, 2-5
Serial Disconnect Delay
configuration file options, 12-40
Serial Port Setup screen
picture, 29-26
service
default class of, 1-4
service modes
supervisor control of Day and Night service, 6-38
working with, 6-36
Service Observe Code
configuration file options, 12-40
services
Brooktrout, 1-13
Dialogic, 1-13
GammaLink, 1-13
KVT Audio Gen, 1-13
KVT Database Manager, 1-13
KVT E-mail Delivery, 1-14
KVT FTP Server, 1-14
KVT Navigator, 1-14
KVT Report, 1-14
KVT Sendmail Service, 1-14
KVT Voice Mail Manager, 1-14
Proxy E-mail Client, 1-15
understanding, 1-7
setting up
Account Number Box, 5-85
ACD Box, 5-72
ACD groups, 6-19
call queuing, 6-40
call recording, 6-103
companion listing boxes for automatic allocation mailboxes, 28-17
custom prompts for IVR, 27-11
Customer Service groups, 6-19
data entry Question Boxes, 6-91
database lookups, 6-81
Dial-by-Name directory, 6-79
digit translation file, 6-66
digital pagers, 6-27
Directory Box, 5-67
Enhanced Customer Service, 6-20
Fax Box, 25-1

fax broadcasting, 25-17
fax distribution restrictions, 25-11
Follow-Me, 6-108
Gateway Box, 28-4
Group Box, 5-64
IVR application, 27-11
IVR Box, 27-1
Listing Box, 28-7
mailbox, 5-4
message delivery, 6-33
network messaging, 6-106
paging, 6-24
PBX information, 3-1
Question Box, 5-44
Routing Box, 5-53
Routing Box owners, 5-55
schedule for paging, 6-31
setting up system settings for fax, 25-5
Single Message Store unified messaging on the VP system PC, 23-37
Single Message Store with TUI Browser unified messaging, 23-42
system information, 4-1
system settings for fax, 25-5
Talking Classifieds application, 28-1
TDD device support, 6-96
Telemarketing applications, 22-8
Telemarketing Box, 22-1
tone pagers, 6-24
unified messaging and e-mail reader on the VP system PC, 23-22
voice pagers, 6-31
Setting Up the Other Customizations screen, 4-40
Custom and Debug, 4-43
Display Mail-Box Passwords on Screen, 4-42
Initial Pause, 4-43
Maximum Box Length When Caller is Dialing, 4-42
Play Message Time and Date, 4-40
Trace, 4-43
When Called party Answers, Announce the Call, 4-41
When Called Party Answers, Play His/Her Name, 4-41
SETUP, 13-2
Setup
copying database and setup files, 14-2
restoring database and setup files, 14-3
setup
collecting necessary information, 2-16
understanding the system setup steps, 2-23
Setup utility
integration defaults, 4-1
Share Fax Reports
configuration file options, 12-40
sharing
fax ports, 24-12
shutting down
VP System, 2-12
Single Message Store
Mailbox screen, 5-17
Single Message Store Audio Format
General Information screen, 4-12
Single Message Store unified messaging
implementing on the LAN, 23-36
Single Point of Administration, 2-24
SMDI
activating, 2-9
SMDI Answer First
configuration file options, 12-40
software
installing hardware /software required for fax modules, 24-2
software version
determining the VP systemís current software version, 2-13
software versions
displaying in Line Status screens, 6-45
Sound Recorder
using to record prompts and greetings, 15-23
Source File
Telemarketing Box screen, 22-4
Special Ans Digit
configuration file options, 12-41
specifying
call logs formats, 6-2
call transfer types, 6-8
calls to be recorded, 6-103
dial rules, 6-104
digit translation based on port number, 6-77
digit translation based on time of day, 6-77
external dial rules, 22-7
guest mailboxes for hotel integration, 7-1
Routing Box owners, 5-55
rules for automatic logon, 6-78
rules for recording calls, 6-77
speeding
searches for an IVR application, 27-15
Start
Mailbox screen, 5-37
Start Calling at X Ö Stop at
Telemarketing Box screen, 22-4
Start Calling on this Date
Telemarketing Box screen, 22-3
Start Col
Telemarketing Box screen, 22-4
Start Date
Telemarketing Box screen, 22-3
Start Hunting From
ACD Box, 5-79

Start Time X
Telemarketing Box screen, 22-4
starting
VP System, 2-12
station identifier digits
integrating with PBXís, 17-3
Stop Calling on this Date
Telemarketing Box screen, 22-3
Stop Recording After X Seconds of Silence
General Information screen, 4-11
Store Call Log to
General Information screen, 4-9
Store Responses in Remote Location
Question Box, 5-49
storing
calling partyís number, 6-69
subscribe
completing the Subscriber Mailbox Information worksheet, 2-18
subscriber
completing the Subscriber Schedule worksheet, 2-19
SuperUser Access, 23-14
supervisor
adding a mailbox, 6-58
control of Day and Night service, 6-38
deleting a mailbox, 6-58
modifying a mailbox, 6-58
performing mailbox administration, 6-57
performing port administration, 6-61
performing Question Box administration, 6-60
performing Routing Box administration, 6-59
restoring a mailbox, 6-59
sending broadcast messages, 6-61
suspending a mailbox, 6-58
understanding features, 6-55
supervisor mailbox
default value, 1-5
Supervisor options
using, 10-18
Supervisor Status
Class of Service screen, 4-36
supervisor status
default value, 1-4
suspending
mailbox remotely, 6-58
SWITCHES.TXT
activating modules, 24-1
SWITCHES.TXT code
entering, 2-11
switching
Day and Night service modes remotely, 6-62
languages, 6-63
synchronization
understanding, 23-19
system
equipment requirements, 2-1
preparing, 2-1
understanding setup techniques, 2-1
understanding system setup, 2-1
understanding the system setup steps, 2-23
System Administration and Personal Administration Tools
setting up, 23-51
System Administration Tool
using, 23-50
System Administration Tools
installing, 23-50
system error messages, 18-1
system information
accessing system information screens, 4-2
Business Hours screen, 4-19
Call Transfer screen, 4-23
Class of Service screen, 4-32
Diagnostic Menu options, 4-43
General Information screen, 4-3
Holiday Schedule screen, 4-21
integration defaults, 4-1
Line Information screen, 4-16
PBX Information screen, 4-23
setting up, 4-1
Setting Up the Other Customizations screen, 4-40
technical bulletins, 4-2
Technical Information screen, 4-29
system reports
available on Windows-based system, 6-52
System Setup utility
integration defaults, 4-1

—T—

T Directory
file organization, 16-4
T1 Port
configuration file options, 12-41
taking
line off hook in Line Status screens, 6-44
Talking Classifieds Gateway Box
Listing Box screen, 28-10
Talking Classifieds Gateway Box screen
picture, 29-41
Talking Classifieds module
accessing a Gateway Box, 28-5
accessing Call History screen, 28-12
completing Call History screen, 28-12, 28-13
copying pre-recorded prompts, 28-19
generating Talking Classifieds reports, 28-11
modifying existing prompts, 28-19
preparing Talking Classifieds reports, 28-12
printing Talking Classifieds reports, 28-13
setting up, 28-1

setting up a Gateway Box, 28-4
using, 28-1
using prompts, 28-18
TCNAME
configuration file options, 12-41
TDD Auto
configuration file options, 12-41
TDD device support, setting up, 6-96
TDD Digit
configuration file options, 12-41
technical bulletin information, using, 4-2
Technical Information screen, 4-29
Automatically Update All MWI Lamps at, 4-31
Disconnect Digit Sequence, 4-30
Hook-flash Length, 4-30
Number of Seconds of Non-Silence to End Recording, 4-31
Number of Seconds of Silence to End Recording, 4-31
Pause Length, 4-30
picture, 4-30, 29-6
Technician level password, logging into the VP System, 2-12
Technician Password
General Information screen, 4-6
Technician password
default password, 1-4
Telecommunications Devices for the Deaf device support, setting up, 6-96
Telemarketing Box
accessing, 22-1
Answering Machine area, 22-6
Answering Machine Greeting, 22-6
Assume No Answer After X Rings, 22-5
Box Name, 22-3
Box Number, 22-3
Call on (Day), 22-4
Completed, 22-3
Default Path, 22-4
Directory Containing Telemarketing Files, 22-4
End Date, 22-3
Exclude, 22-5
If Answering Machine Detected, Go to Box, 22-6
If Called Number Does Not Answer, Try Again After X Minutes, 22-6
If Called Number is Busy, Try Again After X Minutes, 22-5
Job Complete, 22-3
Make Calls on area, 22-4
Max Digits, 22-5
Maximum Number of Digits to Dial, 22-5
Name of File Containing ìDo not Call, 22-5
Name of File Containing Telephone Numbers, 22-4
Name of File to Log Telemarketing Call Results, 22-5
Number of Re-Tries, 22-6
Number of Times to Re-try Busy / No-Answer Numbers, 22-6
On Answer, Go to Box, 22-6
Results, 22-5
Retry Busy Number, 22-5
Re-Try No-Ans Number, 22-6
setting up, 22-1
Source File, 22-4
Start Calling at X Ö Stop at, 22-4
Start Calling on this Date, 22-3
Start Col, 22-4
Start Date, 22-3
Start Time X, 22-4
Stop Calling on this Date, 22-3
Telephone Number Start at Position, 22-4
understanding, 22-1
Use Lines in area, 22-3
Use Lines in Group, 22-3
Wait for Answer, 22-5
When Answer is Detected, Go to Box, 22-6
Telemarketing Box screen
picture, 29-15
Telemarketing Box screen, Call Control tab
picture, 29-43
Telemarketing Box screen, File Names tab
picture, 29-44
Telemarketing Box screen, When to Call tab
picture, 29-42
Telemarketing module
setting up Telemarketing applications, 22-8
stopping a job in progress, 22-10
using, 22-1
telemarketing status
viewing for outbound in Line Status screens, 6-47
Teleparameter
adjusting system info, box setups, and VM.CFG data, 11-4
using, 11-1
using to run PBX Setup, 11-1
value tables, 11-4
teleparameter
understanding, 2-1
telephone lines
connecting telephone lines to fax boards, 24-2
Telephone Number Start at Position
Telemarketing Box screen, 22-4
telephone system
connecting to VP System, 2-2
telephone system information, 2-21
terminating
call on one line from Line Status screens, 6-43
three way calling, 6-16

Test equipment, 8-1
Text to Speech, 23-32
Then Search for Up to X More Matching Records
IVR Box screen, 27-9
third-party
adjusting system Settings for third-party fax server, 24-15
using third party application to send faxes, 24-14
three way calling
terminating, 6-16
understanding, 6-16
using, 6-16
time
including time and date announcements, 6-88
Time of Day
Route Call Based On, 5-62
time of day
specifying digit translation based on time of day, 6-77
Times to Call
Mailbox screen, 5-28
To
Mailbox screen, 5-22
Tone
configuration file options, 12-41
tone pagers
programming for message delivery, 6-26
setting up, 6-24
tones
detecting for call progress, 13-1
tones, detecting for call progress, 6-12
touch-tones
detecting absence of, 17-2
Trace
Setting Up the Other Customizations screen, 4-43
trace
viewing Diagnostic Trace in the Voice Mail Viewer application, 6-47
Trace Setup screen
Diagnostic Menu options, 4-44
picture, 4-44, 29-26
TRAIN
using a TRAIN for Dialogic boards, 13-13
Trans Bypass
configuration file options, 12-41
TRANS.TXT
setting up digit translation file, 6-66
using TRANS.TXT and reason codes to play specific greetings, 6-75
using translation file, 17-4
Transfer Bypass Digit Arrives area
PBX Information screen, 4-28
transfer bypass feature
automatic transfer bypass, 6-13
choosing transfer bypass digit, 6-14
manual transfer bypass, 6-12
using, 6-12
Transfer if Answered within X Rings
ACD Box, 5-79
Transfer Ring
configuration file options, 12-42
Transfer Schedule
Mailbox screen, 5-25
Transfer to
Mailbox screen, 5-22
Transfer To / During Schedule
Mailbox screen, 5-25
Transfer to Message Sender
options between messages, 10-9
Transfer Type
Blind, 5-21, 6-6
Mailbox screen, 5-21
No Transfer, 5-21
Screen, 5-21, 6-6
Wait for Answer, 5-21, 6-6
Wait for Ring, 5-21, 6-6
transfer types
No Transfer, 6-6
Transfer without Ringing Agent Extension
ACD Box, 5-84
transferring
files between remote PC and the host PC, 9-6
translation file
using TRANS.TXT, 17-4
Trigger Notification
Question Box, 5-49
troubleshooting, 8-1
call recording, 6-104
call transfer, 6-17
Dual Message Store unified messaging and e-mail reader features on client PCs, 23-35
error messages of system, 18-1
paging, 6-32
unsuccessful call attempts, 6-18
Trunk I.D.
C.O. line digits considerations, 6-73
Try Extension
default value, 1-5
Try Extension X Times Before Going Back to Caller
Class of Service screen, 4-39
TTS Buffer Size
configuration file options, 12-42
tutorial
completing the new user tutorial, 10-1
options for new user tutorial, 10-3
Tutorial Reps
configuration file options, 12-42
typical setup of VP System, 2-5

—U—

UM Name
configuration file options, 12-42
Understanding
E-mail tab on the Mailbox screen, 5-39
understanding
Account Number Box, 5-85
ACD Box, 5-72
ACD groups, 6-20
automated attendant, 1-1
box, 5-1
box types, 1-2
call transfer, 6-5
call transfer results, 6-6
D.I.D. considerations, 6-66
default database, 1-3
Dial-by-Name directory configuration options, 6-80
digit translation, 6-67
Directory Box, 5-67
Dual Message Store unified messaging and e-mail reader functionality on the LAN, 23-17
e-mail reader functionality, 23-18
Fax Order file, 24-15
file organization, 16-1
Gateway Box, 28-4
Group Box, 5-64
how to create a range of boxes, 5-3
IVR module, 27-1
Line Status screens, 6-42
Listing Box, 28-7
Main menu, 10-3
Message Status Viewer application, 6-48
multilingual feature, 6-63
outgoing call feature, 6-90
product differences, 1-6
prototype mailbox, 5-5
Question Box, 5-44
reserved boxes, 5-3
Routing Box, 5-53
Routing Box 800, 801,821, 5-55
services and applications, 1-7
supervisor features, 6-55
system setup steps, 2-23
system setup techniques, 2-1
Telemarketing Box, 22-1
three way calling, 6-16
transfer types, 6-6
unified messaging synchronization, 23-19
voice mail, 1-1
voice mail addresses, 23-28
Voice Mail Viewer application, 6-47
VP System, 1-1
VP System design, 1-2
VP System Integration, 17-1
unified messaging
Dual Message Store installation and setup process, 23-21
implementing on the LAN, 23-4
installing Inbox Voice Messenger module, 23-43
installing on a client PC, 23-27
LAN and E-mail requirements for Dual Message Store, 23-15, 23-37
setting up on the VP system PC, 23-22
setting up Single Message Store unified messaging on the VP system PC, 23-37
setting up Single Message Store with TUI Browser, 23-42
synchronization, 23-19
troubleshooting Dual Message Store unified messaging and e-mail reader features on client PCs, 23-35
understanding Dual Message Store functionality on the LAN, 23-17
using, 23-4
using Dual Message Stores, 23-15
using Single Message Stores, 23-36
Unitized
configuration file options, 12-42
Unlabeled Box field
ACD Box, 5-80, 5-82
Directory Box, 5-71
Fax Box, 25-4
Gateway Box screen, 28-7
IVR Box screen, 27-5
Mailbox screen, 5-31
Question Box, 5-51
Routing Box, 5-59
Unlabeled List of Members area
Group Box, 5-66
Unlabeled Members fields
Mailbox screen, 5-39
unsuccessful call attempts
troubleshooting, 6-18
upgrading
DOS-based VP Systems to latest available software, 2-15
NT-based VP Systems to latest available software, 2-15
upgrading ports, 2-9
Use Enhanced Customer Service Features
General Information screen, 4-15
Use Enterprise
configuration file options, 12-43
Use L&H TTS
configuration file options, 12-43
Use Language
Mailbox screen, 5-32

Use LCD Menus
configuration file options, 12-43
Use Lines in area
Telemarketing Box screen, 22-3
Use Lines in Group
Telemarketing Box screen, 22-3
Use Printer
configuration file options, 12-43
Use Three-Way Calling
Mailbox screen, 5-23
Use Transfer Bypass Digit
Call Transfer screen, 4-28
user setup
collecting necessary information, 2-16
Uses Client Desktop Applications
Mailbox screen, 5-17
using
account numbers, 6-101
Accucall for Rhetorex boards, 13-1
Accucall for Rhetorex boards in Windows-based systems, 13-18
Call Control, 23-47
call logs, 6-1
custom prompts for IVR, 27-10
D/41D boards, 20-8
D/41E boards, 20-11
D/41H boards, 20-15
D/4PCI boards, 20-18
D160SC-LS boards, 20-20
data entry Question Boxes, 6-91
database lookups to route calls, 6-82
Dial-by-Name directory, 6-79
DIALOG/4 boards, 20-1
Dialogic boards, 20-1
different greetings for busy and no answer, 6-15
disk maintenance utilities on DOS-based VP systems, 21-5
disk maintenance utilities on Windows-based VP systems, 21-7
Dual Message Store unified messaging, 23-15
Dual Message Store unified messaging and e-mail reader on client PCs, 23-33
enhanced fax configurations, 24-13
fax distribution module, 25-1
Fax Distribution prompts, 25-18
FaxMail module, 26-1
General Call Log file, 25-17
hotel integration features, 7-1
Inbox Voice Messenger for Microsoft Outlook, 23-7
IVR module, 27-1
KeyLink, 9-1
line groups, 6-87
major features, 6-1
MAKEBOX.EXE utility, 5-3
Microsoft Exchange Administrator to modify VP system mailboxes, 2-24
Monitor, 6-3
Monitor feature with outgoing calls, 6-90
multilingual feature, 6-63
Outbound Telemarketing module, 22-1
PBXpert/32 for Dialogic boards, 13-17
Personal Communication Module (PCM), 23-50
pre-recorded prompt options, 15-24
ProLine/2V boards, 20-5
reason codes, 6-70
Rhetorex boards, 20-21
Rhetorex boards on Windows-based VP systems, 20-25
serial administration, 9-1
Serial Administrator, 9-1
service modes, 6-36
Single Message Store unified messaging, 23-36
special characters in database lookups files, 6-83
Supervisor options, 10-18
Talking Classifieds module, 28-1
Talking Classifieds prompts, 28-18
Teleparameter feature, 11-1
Teleparameter feature to run PBX Setup, 11-1
the DOS VP system conversion utility, 2-7
third party application to send faxes, 24-14
three way calling, 6-16
TRAIN for Dialogic boards, 13-13
TRANS.TXT and reason codes to play specific greetings, 6-75
transfer bypass feature, 6-12
translation file TRANS.TXT, 17-4
unified messaging, 23-4
VCM, 23-1
Voice Mailbox Administration, 23-47
Web-based Personal Administration Tools, 23-50
Web-based System Administration Tools, 23-50
wildcard characters in translation rules, 6-69
utilities
using disk maintenance utilities on DOS-based VP systems, 21-5
using disk maintenance utilities on Windows-based VP systems, 21-7

—V—

value tables
Teleparameter feature, 11-4
VCM
installing client software, 23-1
permitting subscriber access, 23-3
setting up subscriber workstations, 23-2

subscriber information on, 23-4
using, 23-1
VCM Answer Delay
configuration file options, 12-43
VCM Channel Timeout
configuration file options, 12-44
VCM Line Group
configuration file options, 12-44
VCMName
configuration file options, 12-44
version
determining the current software version, 2-13
versions
displaying in Line Status screens, 6-45
vertical file format
selecting for a Question Box, 6-93
View Schedules button on Follow-Me tab
Mailbox screen, 5-27
viewing
available displays in Line Status screens, 6-45
box setup, 5-1
Class of Service report, 6-53
Default Password report, 6-55
Hourly Statistics report, 6-53
line activity in the Voice Mail Viewer application, 6-47
Login Failure report, 6-55
Mailbox Delivery report, 6-55
Mailbox Information report, 6-54
Mailbox Usage report, 6-55
message status counts, 6-48
Port Activity report, 6-53
Port Contention report, 6-54
Port Contention Trend by Day of Week report, 6-54
Port Contention Trend by Month report, 6-54
the error log in the Voice Mail Viewer application, 6-48
VP system reports, 6-48
VM Directory
file organization, 16-5
VM.CFG
adjusting system info, box setups, and VM.CFG data, 11-4
modifying for multilingual systems, 6-66
VMAIL addresses
creating and updating, 23-29
understanding, 23-28
Voice
Routing Box, 5-63
voice boards
installing, 20-1
voice mail
overview, 1-1
voice mail addresses
creating and updating, 23-29
understanding, 23-28
Voice Mail Viewer application, 1-10
disconnecting a port, 6-47
manually refreshing message waiting lamps, 6-48
resetting a mailbox, 6-47
resetting inbound and outbound call counts, 6-47
using, 6-47
viewing Diagnostic Trace, 6-47
viewing the error log file, 6-48
Voice Mailbox Administration
permitting subscriber access, 23-49
setting up subscriber workstations, 23-47
subscriber information on, 23-50
using, 23-47
voice pagers
setting up, 6-31
Volume
configuration file options, 12-44
VP System
accessing system information screens, 4-2
accessing the Database Administrator from a networked PC, 2-24
collecting necessary information, 2-16
connecting directly to central office, 2-3
connecting seral cable between VP System and PBX, 2-5
connecting to key system, 2-3
connecting to PBX, 2-3
connecting to telephone system, 2-2
creating boxes on the system, 5-1
defining paths for the VP System files, 4-15
determining the current software version, 2-13
equipment requirements, 2-1
error messages, 18-1
exiting, 2-12
installing DOS-based VP system software, 21-3
installing the key, 21-3
installing the voice processing board, 21-3
integrating with the PMS System, 7-3
logging in, 2-12
making boxes on the system, 5-1
making local connections to the board, 2-5
overview, 1-1
phone system information, 2-21
prompts, 15-1
recording prompts, 15-20
retrieving a fax from the VP System, 25-15
Routing worksheet, 2-20
running, 2-12
running the PBX Setup utility, 3-1
setting up system information, 4-1
shutting down, 2-12
specifying box information, 5-1

starting, 2-12
Subscriber Mailbox Information worksheet, 2-18
Subscriber Schedule worksheet, 2-19
technical bulletin information, 4-2
troubleshooting, 8-1
typical setup, 2-5
understanding integration, 17-1
understanding prompt format, 15-20
understanding the design, 1-2
understanding the system setup steps, 2-23
upgrading DOS-based VP systems to latest available software, 2-15
upgrading NT-based VP systems to latest available software, 2-15
using as fax switch, 6-97
using major features, 6-1
using NTPROMPT, 15-21
using RPROMPT, 15-21
using VPROMPT, 15-21
viewing VP system reports, 6-48
VP system
installing Single Message Store with Inbox Voice Messenger module, 23-43
installing unified messaging on client PC, 23-27
setting up Single Message Store unified messaging on, 23-37
setting up Single Message Store with TUI Browser unified messaging on, 23-42
setting up unified messaging on, 23-22
VP System file options, 12-1
VRBINDEX
running VRBINDEX, 27-15

—W—

Wait for a Digit, After Playing Greeting, 5-30
Wait for Answer
Telemarketing Box screen, 22-5
Transfer Type, 5-21, 6-6
Wait for Dial Tone When Making a Call
PBX Information screen, 4-26
Wait for Ring
Transfer Type, 5-21, 6-6
using TRANS.TXT and reason codes to play specific greetings, 6-75
Wait Until Mailbox Contains X Fax Messages (Maximum X Minutes)
Mailbox screen, 5-38
Wait X Seconds for a Digit
Routing Box, 5-58
Wake-up Call
administrating, 7-2
loggig schedules, 7-2
logging calls, 7-3
making, 7-2
using for hotel integration, 7-1
Wakeup Rings
configuration file options, 12-44
Wake-Up Time
Mailbox screen, 5-38
Web-based Personal Administration Tool
using, 23-50
Web-based Personal Administration Tools
installing, 23-50
Web-based System Administration and Personal Administration Tools
setting up, 23-51
Web-based System Administration Tool
using, 23-50
When Answer is Detected, Go to Box
Telemarketing Box screen, 22-6
When Called party Answers, Announce the Call
General Information screen, 4-13
Setting Up the Other Customizations screen, 4-41
When Called Party Answers, Play Account Number/Caller ID on External Calls
General Information screen, 4-14
When Called Party Answers, Play Account Number/Caller ID on Internal Calls
General Information screen, 4-14
When Called Party Answers, Play His/Her Name
General Information screen, 4-13
Setting Up the Other Customizations screen, 4-41
When Digit Received, Wait for More Digits
Routing Box, 5-63
When Exiting Box, If Caller Has Ordered Max Number of Docs
Fax Box screen, 25-4
When Exiting Box, If Caller May Order More Documents
Fax Box screen, 25-4
When Exiting Mailbox
default value, 1-5
When Exiting Open Mailbox, Go To Box
Class of Service screen, 4-38
When Trying an Extension
ACD Box, 5-79
While In Queue
default value, 1-5
While in Queue Announce Position in Line
Class of Service screen, 4-38
While In Queue, Say Position In Line
Class of Service screen, 4-38
wildcard characters
using in translation rules, 6-69
using special characters in database lookups files, 6-86
Windows
requirements for Windows-based VP Systems, 21-2

Windows-based VP System Box Setup screens, 29-27
Windows-based VP System screens, 29-15
Windows NT
accessing VP System menu options, 1-18
product differences, 1-6
VP system applications, 1-7
VP system services, 1-7
Windows-based VP System
configuring the PC for, 21-2
worksheets
completing the Business Hours/Holidays worksheet, 2-18
completing the Routing worksheet, 2-20
completing the Subscriber Mailbox Information worksheet, 2-18
completing the Subscriber Schedule worksheet, 2-19

—X—

X Times
Mailbox screen, 5-35
XFER Name Time
configuration file options, 12-44